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**University of Alberta**

**The Roman Coinage from Ossaia\La Tufa**

**by**

**Charles Patrick MacMillan Conway**

**A thesis submitted to the Faculty of Graduate Studies and Research in partial  
fulfillment of the requirements for the degree of Master of Arts**

**in**

**Classical Archaeology**

**Department of History and Classics**

**Edmonton, Alberta  
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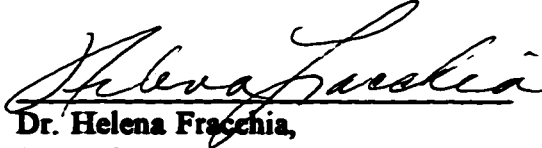
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\_\_\_\_\_  
7811 162nd Street  
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Canada T5R 2L5

**University of Alberta**

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, and thesis entitled *"The Roman Coinage from Ossaia/La Tufa"* submitted by Charles Patrick MacMillan Conway in partial fulfillment of the requirements for the degree of Master of Arts in Classical Archaeology.



Dr. Helena Fracchia,  
Supervisor



Dr. David Mills, Chair of  
Defense Committee



Dr. Jeremy Rossiter



Dr. Alastair Small



Prof. Carola Small, External  
Reader

October 4, 1996

### **Abstract**

**This thesis deals with the Roman coins from the University of Alberta excavations at Ossaia/La Tufa, in Tuscany. Through the 1995 digging season, a great number of these coins have been uncovered, dating from the reign of Augustus through to the late fourth century A.D., and this thesis seeks to analyse the collection, both as a free-standing group of coins and in its historical and economic context. The role and circulation of Roman imperial coinage is also examined in an empire-wide context, in order to provide background for the Ossaia/La Tufa collection. It should be noted that excavation at the site is on-going.**

## **Table of Contents**

<b>Introduction.....</b>	<b>Page 1</b>
<b>Chapter 1: The Use of Coinage in Archaeology.....</b>	<b>Page 4</b>
<b>Chapter 2: The Role of Coinage in the Roman World.....</b>	<b>Page 10</b>
<b>Chapter 3: The Coinage of Ossaia/La Tufa.....</b>	<b>Page 21</b>
<b>Conclusion.....</b>	<b>Page 40</b>
<b>Works Consulted.....</b>	<b>Page 45</b>
<b>Appendix I: Glossary.....</b>	<b>Page 51</b>
<b>Appendix II: The Ossaia/La Tufa Coin List.....</b>	<b>Page 53</b>



**List of Tables**

**Table 1: Comparison of Coin Collections by Period.....Page 39**

## Introduction

The Roman villa site at Ossaia/La Tufa, excavated by teams from the University of Alberta and the University of Perugia beginning in 1992, lies on a small platform of land overlooking the Val di Chiana, approximately 6 kilometres to the South of the ancient Etruscan town of Cortona.

Unfortunately, very little is known about the history of Cortona before the medieval period. Cortona was founded (according to legend, by a refugee from the Trojan War) probably in the eighth or seventh centuries B.C.,<sup>1</sup> and, in the fourth century B.C., was one of the founding cities of the Etruscan dodecapolis. However, the Etruscans were forced to engage repeatedly in warfare against such peoples as the Umbrians, Samnites, and Gauls, and this eventually left them open to Roman expansion.<sup>2</sup>

Cortona seems to have first come into contact with Rome in the fourth century B.C., and, along with Arezzo and Perugia, is recorded as having signed a treaty with the Romans in 310 B.C. What was probably the town's greatest ancient "claim to fame" came during the second Punic war, when Hannibal passed through the territory of Cortona shortly before routing the Romans at Lake Trasimene; it is this occasion which may have given Ossaia ("The Bone-Yard") its name.<sup>3</sup> Livy records that Hannibal devastated the area;<sup>4</sup> if any such activity took place at the exact site of the Ossaia villa, no trace of it has

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<sup>1</sup>Neppi Modona 1977, p. 22.

<sup>2</sup>Barbieri 1964, p. 20.

<sup>3</sup>Neppi Modona 1977, p. 25.

<sup>4</sup>Livy XXII.4

remained. After that, there is very little mention of Cortona in the ancient sources. Presumably, the city was allied with, or at least not hostile to, the Romans during the Social Wars, for not only is no punishment mentioned, but it seems that Cortona received Roman citizenship shortly thereafter, probably in recognition of this alliance.<sup>5</sup> Subsequently, the city became part of Augustus' re-constituted Etruscan League.<sup>6</sup> The Imperial and Late Antique periods passed without significant historical incident for Cortona.

Although Cortona itself does not rate a mention in historical records of the Imperial period, we have begun to come to some conclusions about the history of the Ossaia villa site. Brick stamps of the Vibius Pansa family have been uncovered, testifying to first century B.C. ownership of the site. The finding of another brick stamp, inscribed CAESARVM, fits this theory, as the Vibii Pansae are known to have bequeathed their lands to the imperial family. Later, perhaps towards the end of the first century A.D., the land seems to have passed into the hands of one Aulus Gellius, possibly a local freedman. Subsequently, it is possible that the villa evolved from a "stately home" to a small *vicus*, as there is evidence for late antique, industrial re-use of some of the villa areas.

As this thesis deals with the collection of coinage from the villa, it is necessary to take a brief look at the economy of Etruria during the Imperial period. It is likely that Etruria, while never impoverished, was also never truly prosperous either; Frank cites as

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<sup>5</sup>Neppi Modona 1977, p. 27.

<sup>6</sup>Torelli 1982, p. 302.

evidence for this the lack of public building, among other things.<sup>7</sup> The region's main export was likely wheat, which would have been shipped down the Tiber (navigable at that time as far as Chiusi) to Rome.<sup>8</sup> Frank seems to feel that the region was extremely depressed, going as far as to state that "Etruria...was a depleted and unwanted country."<sup>9</sup> However, given the presence of a villa as large and opulent as the one we are uncovering at Ossaia, it seems that this view is in error, at least for the early years of the empire. Furthermore, despite his eventual conclusions, Frank notes that spelt from Clusium was well thought-of, and there are, as well, the famous pottery works at Arretium to be taken into consideration.

The task of this thesis is to survey the (ample) numismatic evidence from the villa at Ossaia, and to lay the groundwork for a more detailed examination of the collection in the context of regional coin finds.

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<sup>7</sup>Frank 1940, p. 122.

<sup>8</sup>Frank 1940, p. 145.

<sup>9</sup>Frank 1940, p.123.

## Chap. 1: The Use of Coins in Archaeology

Before beginning an examination of the coins from Ossaia, I believe it worthwhile and indeed necessary to examine the ways in which archaeologists use numismatic evidence. In general, coins uncovered through excavation are found in one of two contexts: as hoards or as "stray" finds. Given that we have not as yet uncovered any true hoards at the Ossaia site,<sup>10</sup> and that the interpretation of hoards is an entirely different subject area from that of site finds, I shall not be dealing with the former in this paper.

The use and interpretation of stray coins from archaeological sites is a topic of some discussion, and, indeed, some dispute. This is compounded by fact that numismatics has often been dissociated from archaeology, and related more to such fields as art history. J.P.C. Kent has commented on this problem:

Certain university appointments of recent years seem to reflect a cautious desire of departments of history and archaeology to emancipate themselves from the tyranny of the classically trained numismatist.<sup>11</sup>

To begin with, however, coins have obvious value to an archaeological site based upon the precision with which they can be dated. Ancient Roman coins can, in most cases, be dated to within a five year period, and often even more closely than that. However, this accuracy of dating by itself does little for the archaeologist beyond

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<sup>10</sup>There is one small group of late fourth century coins found in the same stratigraphic layer (23) in relatively close proximity to each other in Area 1 of the Ossaia site, but I have seen no signs that they were buried deliberately as a hoard, and therefore do not count them as such. The only other associated group of coins on the site are those which have been found in the suspected infant burial ground, and these, while also not a true hoard, I will be dealing with as a group in a later chapter.

<sup>11</sup>Kent 1988, p. 201.

providing a *terminus post quem* for the loss of the coin. The *terminus post quem* can be extremely useful in supplying a date for specific archaeological features, but, in the general course of establishing a sequence of stratigraphic layers for a site, more data are usually required.

When one attempts to use coins for more than simply supplying a *terminus post quem*, matters become slightly more complicated. Many coins remained in circulation for centuries, and could have been lost at any time during those centuries. Thus it is important to take into consideration the context of the finding of the coin, and the other finds from that stratigraphic layer (including, it must be pointed out, other coins). Thus coins, in the larger scheme of dating a site, are often used in a confirmatory role rather than a primary one. This is borne out by the use of the coin finds from several recent excavations. For example, in the report from John Dobbins' dig at La Befra<sup>12</sup> the coins are mentioned only in the section concerning stratigraphy. They are not discussed thereafter, even in the section of the report dealing with the ancient economy of the site. Del Chiaro, in his report on the very small number of coins found at Scansano (Province of Grosseto), claims that they "attest to a period of occupancy extending from the beginning of the 2nd century B.C. well into the first half of the 4th century A.D."<sup>13</sup> He is probably guilty in this case of stretching the evidence, for, although the range of dates for the coins is such as he describes, no account is taken of the afore-mentioned

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<sup>12</sup>Dobbins 1983.

<sup>13</sup>Del Chiaro 1992, p.163. The collection from Scansano consists of eleven items.

possibility that they had been in circulation for some time when they were lost. Finally, the excavation report from Settefinestre, although taking a detailed and in-depth look at the typology of the coins from that site, makes little attempt to go beyond the site in its analysis.<sup>14</sup>

The archaeological use of coins in the regional sense was pioneered by Dr. Richard Reece, who, for the fifth report on the excavations at Richborough, England, devised a system for dividing coins chronologically.<sup>15</sup> In this system, based upon work done earlier in the decade by Alison Ravetz, he broke the history of the Empire up into a number of numismatically significant time periods, creating what amounted to a chronological tally sheet for coins. Reece divided the span between 27 B.C. and A.D. 410 into 20 periods, based either upon the reigns of the various emperors or upon major monetary events (coinage reforms being the most common). Once this system was devised, it was possible to do a relatively rapid survey of museums and collections in a certain area, and arrive at conclusions about the circulation of Roman coinage in that area. Reece began his survey by examining collections in Southern France.<sup>16</sup> Shortly after this article was issued, some modification of the time periods took place, in order to reflect more accurately several chronological elements of Roman Imperial coinage, particularly as they applied to coin finds in Britain.<sup>17</sup> The result consisted of 16 time periods,

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<sup>14</sup>Vittorio 1985.

<sup>15</sup>Reece 1968.

<sup>16</sup>Reece 1967.

<sup>17</sup>Curnow and Reece 1969.

covering roughly the same time period as before (the end date was changed to A.D. 402), with some of them divided into sub-periods. These sub-periods denoted either massive changes in the coinage during a particular reign, or, in some cases, different denominations. This system was further revised when Reece began his survey of Northern Italian coin collections;<sup>18</sup> although the 16 periods were retained substantially as presented before, some of the sub-divisions were different. The project was completed with a general look at the coinage of the Western Empire, which was published in 1973.<sup>19</sup>

Reece's system is quite useful as a comparative tool, but any conclusions must be drawn keeping in mind several inherent difficulties which can render the data meaningless. For example, small samples can provide distorting data unless care is taken not to give them the same weight as larger collections, a care demonstrated in Reece's decision to reject the collection of the Museo Civico in Treviso, among others, in his study of coinage in Northern Italy.<sup>20</sup> As well, care must be taken to disregard groups of coins found in hoards, as these will inflate the number of coins for certain periods, thus not accurately reflecting the patterns of coin loss and circulation.

Furthermore, there is some doubt about the use of quantitative studies in drawing absolute conclusions about the ancient economy. Various attempts have been made to calculate the total number of coins in circulation based on coin loss, but none of these are

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<sup>18</sup>Reece 1971. I shall provide a full *prospectus* of these time periods in the second chapter of this thesis.

<sup>19</sup>Reece 1973.

<sup>20</sup>Reece 1971, p. 176.



accepted as definitively correct.<sup>21</sup> This problem would be easily solved had any ancient mint records survived; unfortunately, none have done so, and thus many of the variables used in quantitative studies are purely speculative.<sup>22</sup> Therefore, the best that Reece's studies can do for us is illustrate patterns of coin loss in the various geographical areas.

The other major problem with this system is the fact, openly and often acknowledged by Reece, that many museum and private collections are of very dubious provenance. For example, many museum collections have a significant body of coins donated by collectors who may have originally obtained their coins anywhere in the Roman world. This is well illustrated in the case of the Museo Bottacin in Padova, which includes coins obtained in Germany, among other places.<sup>23</sup> However, if enough collections are considered together, it is safe to assume that the patterns of coin loss depicted will be essentially valid. Furthermore, this problem is obviously far less an issue when dealing with collections of coins from individual sites.

However, despite these problems, Reece's series of studies is by far the most complete and accurate look at regional coin distribution taken to date. Although the data were collected more than 20 years ago, it is highly unlikely that the conclusions drawn from them should be modified much by more recent discoveries. In the third chapter of the thesis I shall be discussing in more detail the conclusions drawn by Reece from his study of Northern Italian coinage, both as they stand and in the context of the collection

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<sup>21</sup>Hopkins (1980) is a good example of elaborate use of quantification.

<sup>22</sup>Whittaker 1990, p. 111-2.

<sup>23</sup>Reece 1971, p. 169.

from Ossaia.

## Chap. 2: The Role of Coinage in the Roman World

Before taking a detailed look at the coins from the Ossaia site, I wish to examine how coinage circulated and was used in the Roman economy. In examining this subject, one must be careful to differentiate between *coinage*, by which I mean the actual metal tokens which are the subject of this thesis, and *money*, an abstract term which can be applied to almost any form of wealth. On many ancient price lists and records, sums of money are listed, for example, in *denarii*, but this is not proof at all that the transaction was actually carried out in *denarii* or any other denomination of actual coinage. On the other hand, as Howgego has pointed out,<sup>24</sup> one must be careful not to assume too readily that coinage was not used in such transactions.

The use and purpose of coinage in the ancient world has been the subject of many studies, and a number of different conclusions have been reached. Also controversial, and related, are the extent and manner of coin circulation. In general, coins moved outward from the state to the various regions of the Empire in the form of payments to state officials and to soldiers, and returned in the form of taxes and rents. These were constant factors; other factors, which varied in importance depending on the historical period being discussed, include booty collected from conquests as well as payments to peoples outside the Empire. Coins also moved inter-regionally through long distance trade and troop movements, and out of the empire through trade with other nations. Lastly, one must consider coin circulation within individual regions, through day-to-day transactions. The whole situation is complicated by the fact that coins circulated differently depending upon

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<sup>24</sup>Howgego 1992, p. 17.

what they were made of; the less valuable bronze coins were distributed and used for different purposes than those made of silver or gold.

The main method of pecuniary outflow from the state-run mints was the payment of wages of state officials, and, in particular, soldiers. We hear of entire issues of coinage probably struck for the sole purpose of paying the legions, especially during troubled times.<sup>25</sup> The subject of military wages is vast, but it is enough to say here that Roman soldiers, during most periods of Roman history, were paid in coin, and that this must have accounted for a fairly significant proportion of the Roman coins in circulation at any one time. For example, by Alston's calculations the increase in military pay under Caracalla in A.D. 212 cost the state seventy million *denarii*.<sup>26</sup> Furthermore, Hopkins (citing Crawford) has shown that during the late second and early first centuries B.C. military expenditure had a startlingly direct correlation with the number of coins minted, to the extent that such expenditure represented more than 50% of the minted coins.<sup>27</sup> This implies that the state was not yet getting significant numbers of coins back in the form of taxes and rents, and thus the situation is likely to have been somewhat different during imperial times; nonetheless, it is an impressive and indicative statistic. The previously rare practice of paying soldiers in food became more common during the third century,

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<sup>25</sup>For example, in Late Republican times, Marcus Antonius minted several issues during his war against Octavian.

<sup>26</sup>Alston 1994, p. 115. Alston argues, furthermore, that the 70,000,000 estimate is an improbably conservative one.

<sup>27</sup>Hopkins 1980, p. 110. I would take this opportunity to remind the reader of the difficulties inherent in any quantitative study of the type which produced the 50% figure, and to re-emphasize that these numbers are estimates.

due to the partial breakdown of central authority.

Regarding the actual types of coin used to pay soldiers, Alston asserts that the *aureus* was the main unit for calculating the pay of Roman soldiers; however, he goes on to point out that the actual payments, when they were in coin, were probably made in lesser denominations which could be more easily used in minor transactions.<sup>28</sup> There seem, at the time of Diocletian at least, to have been four different types of military payment:<sup>29</sup> the *stipendium*, which was the basic salary, the *annona*, which was either food or money paid for food, the *donativum*, which was money paid on special occasions, and a small daily oil allowance. The second major way in which the state put coinage into circulation was through the purchase of various commodities, in particular the precious metals which supplied the mints. The state, obviously, would have been trying to show a profit on these transactions, and this desire has been cited as a reason for the debasement of the silver coinage.<sup>30</sup> Fulford asserts that much of the bronze coinage entered circulation in this way.<sup>31</sup> A model for this type of transaction would show the guild of money-changers purchasing gold and silver coins and bullion from the general public, paying for it with bronze, and then selling the gold back to the state for more bronze coinage.<sup>32</sup>

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<sup>28</sup>Alston 1994, p. 114.

<sup>29</sup>Duncan-Jones 1990, pp. 105-10.

<sup>30</sup>Fulford 1978, p. 71.

<sup>31</sup>Fulford 1978, p. 73.

<sup>32</sup>Jones 1974, p. 73.

Taxation was probably the main source of wealth returning to the state, but the role of actual coinage in this area is somewhat unclear. The difference seems to have lain in whether a tax-paying province was primarily resource-producing or manufacturing. Duncan-Jones has conveniently broken down the provinces by method of tax payment,<sup>33</sup> and the majority of what he considers cash-paying provinces were located in the Eastern part of the Empire, where most mass production of manufactured goods took place. On the other hand, he does mention Spain as a likely source of taxes in money, on the grounds that fixed taxes such as existed in that province were paid in coin: however, he later cites a fixed tax in grain from Africa,<sup>34</sup> which would seem to contradict that idea. I think it more likely that Spain, which never had a major, long-lasting imperial mint,<sup>35</sup> could not have made regular, significant, tax payments in coinage, and that thus their taxes were paid in kind, which, in most cases, meant in wheat.

Roman coinage returned to the state through rents on imperial lands as well as through taxation, although it seems that these were paid in both cash and kind as well. Howgego presents evidence from a site in Egypt to indicate that on occasion the type of crop dictated the method of rent payment on agricultural sites.<sup>36</sup> It should be noted here

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<sup>33</sup>Duncan-Jones 1990.

<sup>34</sup>Duncan-Jones 1990, p. 192.

<sup>35</sup>There were, of course, many municipal and colonial mints in Spain, but these had by and large died out by the middle of the first century A.D. The only Spanish mints later than that which I have seen mentioned were at Tarraco (in operation between the reigns of Gallienus?? and Constantius II) and at Barcelona (in operation between A.D. 309 and 311).

<sup>36</sup>Howgego 1992, page 17.

that one of the problems with in-depth studies such as those done by Howgego is that records of transactions have not survived Empire-wide. Our best source, and the one used most extensively by Howgego, is the large body of papyri from Egypt, and it is worth bearing in mind that the situation in Egypt may not, and probably did not, exactly reflect that of the rest of the Empire.

Coinage also circulated generally, mainly through use in daily transactions. It would seem obvious from the numbers of coins found as stray site finds in such places as Pompeii that there was use of coinage in daily market transactions, but the scale and nature of this use has been debated. As one example of the far-fetched theories that have been occasionally put forward, West posited the bizarre notion that prices listed in the *Edictum de Pretiis* of Diocletian were arrived at by calculating the minimum number of coins needed to pay each one, and obviously felt that coin use in the Empire was so widespread on such a scale as to make this necessary.<sup>37</sup> I feel that West, in putting forward this idea, falls into the trap discussed above, that is of assuming that listing prices in terms of coinage implies that only coins were used as payment.

On a more realistic level, Crawford put forward the notion that there was a rural-urban split in the scale of day-to-day coin use, but this idea has in recent years come under attack from such scholars as Christopher Howgego. Crawford's main argument was that "small, recurrent purchases do not form part of the picture" of the rural economy.<sup>38</sup> He also cited a quote from the *De Agri Cultura*, in which Cato recommends that the *pater*

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<sup>37</sup>West 1951.

<sup>38</sup>Crawford 1970, p. 44.

*familias* concentrate upon selling rather than buying,<sup>39</sup> thus, in Crawford's opinion, indicating that most rural sites were expected to be somewhat self-sufficient.<sup>40</sup> However, Crawford here is almost certainly guilty of selective use of the source, as Cato, in his preceding passages, describes a series of market transactions among the duties of the *pater familias*. It would seem that Cato's instructions to sell, rather than buy, are nothing more than basic financial advice, and not of major significance in studying the structure of the economy. Even if we were to accept Crawford's model, two questions would still remain. Firstly, to whom would sales mentioned by Cato be made? And, more importantly, what would be the medium of exchange? The logical conundrum here is that, if goods from rural sites were being sold to buyers from urban areas, where coinage was almost definitely the main medium of exchange, then it is clear that coined money did play a role in rural areas. On the other hand, sales to other rural areas run counter to the aforementioned emphasis on selling, not buying, and this too damages Crawford's theories.

The theory of virtually non-existent coin use in rural areas has, furthermore, come under attack from such scholars as C.R. Whittaker, who have presented evidence against the prevailing notion that "industry" (i.e. such activities as pottery-making and metal-working, as opposed to agricultural labour) was primarily located in towns and cities.<sup>41</sup> How, then, can we explain the smaller number of coins found at rural sites? One possible

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<sup>39</sup>*Agri Cult.*2.7. *Patrem familias vendacem, non emacem esse oportet.*

<sup>40</sup>Crawford 1970, p. 30.

<sup>41</sup>Whittaker 1990.



solution, based on Crawford's theory, is that coinage was more likely to be used in rural areas for bulk payments (taxes, etc.) as opposed to day-to-day transactions; however, both the number and the range of dates of the small bronze coins from Ossaia argue against this. I would suggest that the solution might lie in the lower population density of rural areas, which would lead to fewer total coins circulating, but not necessarily mean that the scale of coin use was less.

There is also a dichotomy in the scale of coin use (already observed in the area of tax-payment methods) between those areas of the Empire which were primarily resource producing (Spain and Africa, *inter alia*) and those where a large amount of manufacturing took place (the Eastern provinces, in particular). It can probably be safely assumed that daily use of coin was more widespread in the more industrial areas of the empire, particularly in the East, as it is in those areas that most of the major mints were located. There is, indeed, very little evidence for widespread use of barter system in the Eastern provinces.<sup>42</sup> Furthermore, a law decreed in the mid-fourth century and recorded in the *Codex Theodosianus* states that "the purchase price of things must be money established in public use, not merchandise."<sup>43</sup> This law, though strong evidence for the use of coinage in day-to-day transactions, is not conclusive proof, for the use of the term *pretium* (the "purchase price" in the above passage) is ambiguous. However, Pharr asserts

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<sup>42</sup>Howgego 1992, p. 17.

<sup>43</sup>"...*quia in usu publico constitutas pretium oportet esse, non mercem.*" *Cod. Theo.* 9.23.1., enacted in A.D. 356, during the reign of Constantius II.

that the term here means "the medium of exchange,"<sup>44</sup> unfortunately without backing up his assertion in any way. It is, of course, possible that *pretium* in this case refers to the price shown on price lists and other similar documents, in which case the law would simply be designed to create a standard form of price lists throughout the Empire.

The last major subject to be examined is the geographical range of coin circulation. Here there is a very clear distinction between the different types of coins. Gold coinage circulated quite widely, particularly during the early period of the Empire, when it was minted only at one or two mints. At the other end of the scale, the bronze coinage, minted in many cities under a decentralized system, does not seem to have travelled very far at all.

However, during the third century A.D., imperial mints were established in many areas of the Empire, and by the time of Diocletian the Eastern cities had completely ceased to strike their own coinage (Alexandria was the last to do so); thereafter the matter becomes somewhat more complex. The fact that most of the major mints of the fourth century were located on or near the coast (the exceptions were the mints at Lugdunum, Treveri, and Siscia<sup>45</sup>) could be taken to indicate that coins circulated widely through trade; however, I do not believe that to be the case. Situating the mints in port cities would have allowed for much cheaper, not to mention safer and quicker, shipment and consignment of coin in bulk (pay packets, etc.), as well as bullion, and I believe this,

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<sup>44</sup>Pharr 1952, p. 244, n. 4. The difficulties of terminology in this law offer a prime example of the danger of interpreting any reference to money as also referring to coinage.

<sup>45</sup>Fulford 1978, p. 68.

rather than trade, was the determining factor behind the mint placement. A relatively local radius of circulation doubtless applied especially to the case of the lower-value bronze denominations, which it would not have been economically sound to ship long distances by land or sea. Diocletian's *Edictum de Pretiis* gives haulage prices for both land and sea transportation,<sup>46</sup> and it is instantly clear from these passages that sea transport was the only economically viable way to ship large amounts of any merchandise, including coins.<sup>47</sup> Jones has calculated the ratio of land to water costs to be in the area of 25:1.<sup>48</sup> Thus the situation of the major mints simply does not imply that coinage was shipped over great distances. As further corroborating evidence for limited circulation, Duncan-Jones presents a model of long-distance trade which shows that movement of coinage did not have to take place at all.<sup>49</sup> According to this model, goods would be bought in one port using money obtained on credit. The merchandise would then be shipped to another port and sold for a profit, and the resulting money would be used to buy more goods. These goods would then be shipped back to the original port and sold, and the profit would be used to pay the original creditor.

The same law from the *Codex Theodosianus* which is discussed above can also

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<sup>46</sup>*Ed. Pret.* xxxvii for sea transport, xvii for land.

<sup>47</sup>As an interesting side-note, virtually all of the imperial marble quarries were situated either on the coast or on major water-ways, doubtless for much the same reasons.

<sup>48</sup>Jones 1974, p. 37.

<sup>49</sup>Duncan-Jones 1990, p. 42

be construed as restricting the long-distance private shipping of money;<sup>50</sup> however, there are some difficulties with this interpretation. The law prohibits both the export of coinage "for the purpose of selling" and the carrying of large quantities of coinage for the payment of expenses.<sup>51</sup> "For the purpose of selling" presumeably refers to shipping coins for bullion (which would explain the charge of sacrilege which accrued to such behaviour), not for trade. Furthermore, the second part of the law, dealing with coinage carried for expenses, makes specific reference to the carrying the coins on animals, and may have been enacted as a response to highway robbery. Given the harsh penalty (death) attached to the crime of selling money, and the fact that the law goes on to demand fairly comprehensive preventive measures, it would seem that there was a perceived problem with merchants committing these crimes. Unfortunately, we have no way of knowing at this time how effective the law was; nonetheless, it doubtless had some restrictive effect upon the circulation of coinage in the late fourth century. Thus it is probably safe to say that long-range trade did not greatly stimulate movement of coinage, but that, insofar as coinage did circulate through trade, it did so to cover customs dues, tolls, and other such incidental expenses.<sup>52</sup> The archaeological evidence overwhelmingly bears out the

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<sup>50</sup>*Col. Theo.* 9.23.1. It is interesting that these acts are viewed in the law as sacriligious.

<sup>51</sup>"*Quicumque...ad diversa vendendi causa transferre detegitur, sacrilegii sententiam subeat et capite plectatur... Nec vero aliquis negotiatorum plus mille follibus pecuniae in usu publico constitutae animalibus propriis sumptuum gratia portare debet.*" *Cod.Theo.* 9.23.1. This last could be interpreted as indicating that coinage was not much used in day-to-day transactions; however, given that the limit on coinage carried is quite large (1000 folles), I believe that the law is meant merely to restrict the long-distance transport of coins.

<sup>52</sup>Howgego 1994, p. 7.

theory of relatively local coin circulation. For example, for a 1979 article, C.E. King compared hoards from all over the Roman Empire, and discovered them to be composed almost entirely of local coins.<sup>53</sup> For example, King cites a fourth century "Italian Hoard" (*sic*) from which more than 70% of the coins originate from Rome.<sup>54</sup> The rest of the hoards discussed in the same article show much the same sort of pattern; in almost every case the plurality if not the outright majority of the coins in the hoard originate from the nearest mint to the hoard site. This evidence is supported by the coins from Ossaia and other nearby sites; out of 168 coins for Ossaia, only one, a mid-fourth century bronze, is definitely of Eastern origin.<sup>55</sup> Speculation on how it arrived in the region of Cortona is, I believe, futile.

Thus we have a picture of coin circulation in the Roman Empire which can be drawn basically as a triangle, with the state at one point. Coins entered general circulation through payments to officials and soldiers, and through the purchase of commodities. In terms of distance, the bronze coinage was relatively local in its circulation, with the gold and silver showing a somewhat greater range. Once in circulation, coins were used in daily transactions, and also probably to some degree in short-range trade. They returned to the state through payment of taxes, particularly from manufacturing provinces, through rents, and also, although there seems to be little documentation of this, through recall of issues.

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<sup>53</sup>King 1979, pp. 90-8

<sup>54</sup>King 1979, p. 93.

<sup>55</sup>Similarly, the villa site at La Befà, in the province of Siena, has produced only one Eastern coin out of 28 (Dobbins 1983, pp. 126-30).

### Chap 3: The Ossaia Collection

The collection of Roman coins from the Roman villa site at Ossaia, Tuscany, currently stands at 168 catalogued items. Approximately half of these have been fairly securely identified and dated. They range, chronologically, from a coin of Augustus to a fourth-century coin of the emperor Valens.<sup>56</sup> There are a number of chronological groupings, primarily among the third and fourth century coins, which will be discussed in more depth in this chapter.

There are at present six coins positively identified as belonging to the first century A.D. First of all, there is the above-mentioned *As* of Augustus.<sup>57</sup> Unfortunately, this coin is too worn to identify its date closely. It is followed by an *as* of Tiberius, also in fairly poor condition. However, enough of the legend has survived to place this coin, which displays on the reverse a rudder and globe, to A.D. 36-37, the last two years of Tiberius' reign.

What follows is a small chronological gap, as the reigns of Gaius, Claudius, Nero, and the three relatively unimportant emperors who followed him are not represented. Given that only three coins earlier than this period have been uncovered, I do not believe that there is any particular archaeological significance to be attached to the gap, which

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<sup>56</sup>There is also one medieval coin, probably a *denaro picciolo* of the Commune of Perugia, datable to the second quarter of the 14th century. It is interesting but probably not terribly significant that this type of coin was known commonly as "cortonese," after the place where this type of coin originally was struck (Finetti 1993, p. 18).

<sup>57</sup>There is also a *denarius* of Augustus, found by the land-owner before the excavation began. However, as I have not had the chance to properly examine this coin, I have left it out of the coin list for the time being.

is supported to some degree by the paucity of contemporary pottery finds, particularly in area 1 of the site.

The Ossaia collection resumes with a coin struck under Vespasian by one of his sons, the future emperor Domitian. This coin is securely datable to the year A.D. 73 by the inclusion of COS.II on the reverse. It is followed by a beautifully-preserved *as* of Vespasian himself, struck in A.D. 74. The fifth first century coin, again from the Flavian period, is an *as* of the emperor Titus, datable to the year A.D. 80. This date is provided by the mention, again on the reverse, of Titus' eighth consulship. The latest first century coin is another *as* of Domitian, this time struck during his tenure as emperor. Its condition is too poor to allow a closer determination of its date.

Following the four Flavian coins, there is a 50-year chronological gap. It is broken only by a single "club" type *quadrans* of Trajan, the only *quadrans* yet found on the site. It is perhaps odd that there have been so few *quadrantes* found, since it was the lowest denomination of the Roman monetary system at the time, and is also found almost exclusively in Italy.<sup>58</sup> This coin has no markings which would allow closer dating, although there have been suggestions that most of Trajan's *quadrantes* date to early in his reign.<sup>59</sup>

The reign of Antoninus Pius is represented by three coins. Two of them, an *as* and a *sestertius*, have on the obverse the head of Antoninus himself. The *as* dates to

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<sup>58</sup>King 1975, p. 56.

<sup>59</sup>King 1975, p. 69. The only way in which we can tell that the coin is from the reign of Trajan is the fact that only Trajan minted *quadrantes* of the "club" type.

A.D. 138, so identified by the use of the abbreviation AEL (for "Aelius") in the obverse legend (Those three letters are, in fact, the only three letters visible on either side of the coin). This abbreviation was not used on coins of Antoninus Pius after the first year of his reign. The *sestertius* is badly preserved, and thus undatable with any accuracy. The last coin of his reign is an *as* of Marcus Aurelius as Caesar, datable to A.D. 161, the last year of Antoninus' reign.

The next four coins, chronologically speaking, belong to the reign of Marcus Aurelius as emperor, but bear the portraiture of three different people. The only coin in this group which portrays Marcus Aurelius himself is an *as*, probably datable to the year A.D. 177. Although Foss does not mention this particular coin, he associates a coin with a very similar reverse with the successful conclusion of Aurelius' wars against the Germans and Sarmatians, and it seems safe to thus interpret our coin as well.<sup>60</sup> Faustina Junior, the notorious wife of Marcus Aurelius, is represented on two coins. One of these is an unremarkable *as*, in poor condition.<sup>61</sup> The other is the only silver coin from the Roman age in our collection, a *denarius* of the IVNO REGINAE type. It was struck at some point between A.D. 161 and A.D. 175. The other coin from the reign of Marcus Aurelius is a *sestertius* of Lucilla, the daughter of Aurelius himself, and wife of his co-emperor Lucius Verus. Presumably, it dates from the period of the joint reign, A.D. 161

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<sup>60</sup>Foss 1990, p. 141. Foss dates the coin to A.D. 176, when the actual victories took place.

<sup>61</sup>This coin could actually date to as early as A.D. 145, the year in which Marcus Aurelius and Faustina were married. However, I have grouped it for the sake of convenience with the other coin of Faustina Junior, which dates definitely to the reign of Marcus Aurelius.



to A.D. 169.

Marcus Aurelius' insane son Commodus, who reigned from A.D. 181 to A.D. 192, is represented by one coin, the only *dupondius* in the Ossaia collection. Although not in good condition, enough of the legend has survived to reveal that it cites Commodus' third consulship, and thus to date it to A.D. 181 or 182.<sup>62</sup>

Coin finds from the first half of the third century are fairly sparse. There are only three coins of the entire Severan dynasty, two of them of Septimius Severus himself. These two, an *as* and a *sestertius*, are both in relatively poor condition. The third Severan coin is a wonderfully preserved *sestertius* of Severus Alexander, portraying Sol on the reverse. A date of A.D. 233 is provided by the reverse legend, which cites Alexander's twelfth year of tribunician power and his third consulship.

The next two coins in the list were struck under the reign of Maximinus I (Thrax). The first is a *sestertius*, and can be dated to the period between April of A.D. 235, when Maximinus' SALVS AVGVSTI series was introduced, and Autumn of A.D. 236, when Maximinus adopted the title "Germanicus," and began to use it on his coinage (the title does not appear on our coin)<sup>63</sup>. The second, also a *sestertius*, does show the title "Germanicus" in the obverse legend, and, being part of his PAX AVGVSTI series, is datable to the years A.D. 236 to A.D. 237.<sup>64</sup>

The only other early third century coin which has come to light is a worn

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<sup>62</sup>Szaivert 1986, pp. 146-8.

<sup>63</sup>Alram 1989, pp. 62-6.

<sup>64</sup>Alram 1989, pp. 66-9.

*sestertius* of Gordian III (Pius), who reigned between A.D. 238 and A.D. 244. This particular coin, portraying Libertas on the reverse, dates to the later part of his reign, between 241 and 243.

The latest *sestertius* in our collection belongs to the very short reign (a few months in A.D. 253) of Trebonianus Gallus. There are a couple of interesting though probably unimportant coincidences concerning this emperor and the site at Ossaia. First of all, Trebonianus Gallus' family hailed from Perugia, not far from the area of Cortona. Secondly, the emperor was a member of the family of the Vibii, whose brick-stamps, albeit examples some 400 or so years older than Trebonianus, have been found at the Ossaia villa.

The first of our significant groupings of coins occurs for the years A.D. 257 to A.D. 270, and comprises fourteen coins struck by Gallienus, his wife Salonina, Claudius II (Gothicus), and probably Quintillus. Five of the coins are of Gallienus himself, and two of them are possibly datable to the years A.D. 267 - 268. These two, both *antoniniani*, are of the "antelope" type (many of Gallienus' coins portray animals), and Foss associates them with an "Invocation of the gods as protectors...against the revolts of Aureolus and Postumus."<sup>65</sup> Presumably he is referring to the legend CONS.AVG contained on the reverse of these coins, but, while it does seem quite plausible that these coins do relate to an invocation to the gods, I cannot see any good reason to associate them necessarily with the revolts late in Gallienus' reign. Weigel, citing one popular role of Diana, raises the possibility that the coins commemorate an appeal for protection

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<sup>65</sup>Foss 1990, p. 226.

against a plague, and this seems to be the more likely choice.<sup>66</sup> There is one other "animal coin" of Gallienus, this time portraying a goat and invoking Jupiter. Although the reverse legend has not survived intact, and goats were portrayed on coins to Diana under Gallienus, the fact that the goat is quite obviously male makes it safe to assume that Jupiter is the deity intended for invocation on this coin. This coin is more likely to have been struck in response to a revolt, as Jupiter, in Weigal's words, "was frequently the object of vows for victory or assistance."<sup>67</sup> There are two other *antoniniani* of Gallienus, but these are impossible to date securely; however, all the coins of Gallienus date to the period of his sole reign, i.e. post-A.D. 260. This is proven by the fact that on coins of the joint reign of Gallienus and Valerian I, the reverse legends of *antoniniani* ended with AVGG, and this double "G" does not appear on any of our coins. Also from the reign of Gallienus is one *antoninianus* of Salonina, but it is once again difficult to date this coin accurately, and it may have been struck as early as A.D. 257.

Rounding out this first large grouping are eight coins of Claudius II. Six of these are *antoniniani* struck during his reign, which lasted from A.D. 268 - 270.<sup>68</sup> The other two are commemorative *antoniniani*, and there is some question as to who actually struck them. Foss states that it was Quintillus (son of Claudius II) during his brief reign in A.D.

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<sup>66</sup>Weigel 1990, p. 137.

<sup>67</sup>Weigal 1990, p. 136.

<sup>68</sup>One of these coins, with a reverse of Neptune, is of dubious identification. I have chosen to place it with the coins of Claudius II on the grounds that the obverse portrait matches those of the other coins of Claudius II, and that the particular reverse type was struck most commonly by Claudius II.

270, and this seems to be the most popular notion, but Sear leaves open the possibility that they were struck even later.<sup>69</sup> If we accept that they were struck under Quintillus, then we have a grouping of ten coins, all *antoniniani* (and as such representing the first appearance of this denomination in our collection), struck within at most a seventeen year period. I will be interpreting such groupings in more depth in the third chapter; suffice it for now to note their existence.

The reign of Aurelian, who succeeded Quintillus, is only represented once, again by an *antoninianus*. After a brief *interregnum*, the emperor Probus assumed the throne, and there are two coins from his six-year reign in the Ossaia collection. They are both *antoniniani*, and one of them is distinguished by being the earliest coin from Ossaia which was definitely not struck at the mint of Rome. It bears a mint mark which clearly reads TS, identifying it as a product of the mint of Thessalonica.

The brief, turbulent period following the death of Probus in A.D. 282 saw no fewer than four emperors claim the throne in roughly a two-year period. There are coins of all but one of these men (Carinus, in fact) in the Ossaia collection. An unattributable *antoninianus* of Carus is probably the earliest of these, dating to A.D. 282 or 283. There are two *antoniniani* of Numerian, the son of Carus, one struck at Rome and one at Arelatum (modern Arles, in France). These both date to A.D. 283 or 284. And, although there are no coins of Carinus himself, there is a very rare *antoninianus* of his wife, Magnia Urbica. This coin, struck at Rome, is of the VENVS VICTRIX type, one of only

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<sup>69</sup>Foss 1990, p. 238, and Sear 1981, p. 268. A.D. 275 seems to be absolute latest date possible for these coins, in any case.

two types of *antoniniani* regularly struck in the name of Magnia Urbica.<sup>70</sup>

The fourth emperor to take the throne during the period of A.D. 282 to 284 was, of course, Diocletian, and the next series of coins from the Ossaia site dates to the numismatically intricate period surrounding his monetary reforms and the rise of the tetrarchic political system. For our purposes, the most important reform is the bronze coinage reform, which probably was instituted in A.D. 295 or 296.<sup>71</sup> There are, in the Ossaia collection, four coins of Diocletian dating from before the reform. They are all probably *antoniniani*, and close dating is not possible at this point for three of them. The fourth is of the CONCORDIA MILITVM type, with date of A.D. 291-2. It does not have a legible mint mark, but the combination of reverse and obverse legends indicate that it was probably struck at Heraclea Thracica. There are also five "post-reform" coins of the tetrarchy, all of them radiates,<sup>72</sup> and all of them struck at the mint of Rome. What is interesting about these coins is that they were minted to commemorate the same event, as all three bear the legend VOT./XX./ followed by an *officina*-identifying Greek letter on the reverse. Exactly what this event was is open to some debate. These coins do refer to an anniversary of the accession of Diocletian, but various opinions have been put forward as to which anniversary they commemorated. Votive legends on coins could

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<sup>70</sup>The other type bears the reverse legend VENVS GENETRIX. The other types of *antoniniani* of Magnia Urbica are, in my opinion, so rare as to cast doubts upon their authenticity.

<sup>71</sup>Sear 1981, p. 290.

<sup>72</sup>Post-reform radiates look much like *antoniniani*, but it is unlikely that they represent a continuation of that denomination (Sear 1981, p. 290).

refer to either *vota suscepta* ("vows undertaken") or *vota soluta* ("vows redeemed"). Thus these coins should refer to either the twentieth anniversary of Diocletian's reign or to the tenth, when vows for the first ten years would have been redeemed, and vows for the next ten undertaken.<sup>73</sup> Foss seems to feel that they commemorate the *vicennalia*, the twentieth anniversary.<sup>74</sup> However, C.H.V. Sutherland presents a very persuasive case for yet a third date - the fifteenth anniversary of reign in A.D. 298. I present his argument intact:

"Fulfilment of Diocletian's 20th *vota* fell in 303; and of his 10th, therefore, in 293. But these [coins] cannot be given to 293 (before the reformed *aes* had begun) or to 303 (when the officinae of Rome were marked P,S,T,Q). They must, then, celebrate (perhaps even with slight anticipation) the half-way mark of the second *decennium*, i.e. 297-8, to which the issue as a whole should be assigned."<sup>75</sup>

Three of these five coins were struck in the name of Diocletian himself, two in the second *officina* and one in the eighth.<sup>76</sup> One other has an obverse of Galerius, and was struck in the fifth *officina*. The last coin of Diocletian's tetrarchy is extremely problematic. While the reverse is of the familiar VOT./XX./ type, with the mark of the third *officina*, the obverse bears the legend and portrait of Constantius I Augustus. Since Constantius did not become one of the *Augusti* until A.D. 305-6, after the latest possible date for that

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<sup>73</sup>"Vows for... continuation in power were, after the early empire, normally expressed in ten-year periods..." (Sutherland 1967, p. 19)

<sup>74</sup>Foss 1990, p. 253. Foss does not cite these exact types at all, but all the coins of Diocletian and the other tetrarchs which refer to *vota* XX he attributes to A.D. 303, and it seems to assume that he felt the same about the types which are represented in the Ossaia collection as well.

<sup>75</sup>Sutherland 1967, p. 335.

<sup>76</sup>The second *officina* at Rome struck almost exclusively obverses of Diocletian during this issue (Sutherland 1967, p. 359-60).

issue,<sup>77</sup> this coin must be a "mule," a mixture of an obverse and a reverse which never actually went together officially; it is possible that many such coins were ancient counterfeits.<sup>78</sup> There is no way at present to determine securely the "legality" of ours. The obverse type gives us a *terminus post quem* of A.D. 305 or 306, and, for the sake of convenience, I have chosen to assign the coin itself to those dates as well.

With the beginning of the reign of Constantine I and his "associates," it becomes more useful to talk about the particular issue of coinage instead of the particular person whose portrait appears on the coin. The issues of coinage, especially the bronze, become much more regular and exclusive, continuing a trend begun under Diocletian. Therefore, in examining the remaining coins in the Ossaia collection, I shall be placing more importance on the reverse type than on the obverse portrait and legend. In addition the relationship between the denominations, once again referring specifically to the bronze coinage, becomes much more difficult to define, and denominations begin to be described as *AE 1* through *4*, depending on the size of the coin (*AE 1* being the largest and *AE 4* the smallest).

The earliest coin from the reign of Constantine the Great dates to the year A.D. 319, and was struck at the mint of Trier. It is of the type portraying two *Victoriae* resting a shield with a votive inscription upon an altar. It is this denomination which, Bruun,

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<sup>77</sup>This "latest possible date" is contingent upon one accepting the dating of Foss and others, and connecting the VOT./XX./ issue with the *vicennalia* in A.D. 303.

<sup>78</sup>Jones 1990, p. 141.

supporting Kent, has argued was the denomination called the *centenionalis*.<sup>79</sup> However, there are also many numismatists who give that name to the famous FEL.TEMP.REPARATIO coinage which was struck in the mid-fourth century (and will be discussed in the context of the Ossaia collection hereafter).<sup>80</sup> Given the fact that no real consensus seems to have been reached on the question, I have decided to dispense with the term altogether, and will refer to the coins as *AE 1*, *2*, *3*, or *4*, depending on their size.

Four of the coins of the period of Constantine I belong to the series of votive coins (or the *AE 3* size) struck in the early 320s to celebrate vows for the *vicennalia* of Constantine himself and the *quinquennialia* and *decennalia* of the Caesars.<sup>81</sup> Two of these coins, struck at Rome (first *officina*) and Thessalonica (also first *officina*), bear the portrait of Constantine himself. The Thessalonican coin almost certainly dates to the later part of this issue (A.D. 321 or later, in all probability), since the first *officina* struck only coins of Licinius at first.<sup>82</sup> The Roman coin, which is of exactly the same type, is unremarkable. The third votive coin is of the Caesarean type, and bears the portrait of Crispus, the son of Constantine. It too was struck at Thessalonica, this time in the fourth *officina*, and is of the later VOT./XX. type. Foss dates the coins of this type to as late

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<sup>79</sup>Bruun 1977.

<sup>80</sup>Jones 1990, p. 51, and Sear 1981, pp. 323-34.

<sup>81</sup>Oddly enough, Patrick Bruun, who wrote the pertinent volume of *The Roman Imperial Coinage*, had argued in an earlier article that the issue actually began in A.D. 317 (Bruun 1954). Apparently, at some point, he changed his mind.

<sup>82</sup>Bruun 1966, pp. 509-12.



as A.D. 323-324,<sup>83</sup> but Bruun has set the date as somewhat earlier than that, around the second half of A.D. 321.<sup>84</sup> The last votive coin is a bit of an oddity. The reverse bares the standard "Caesarean" legend: CAESARVM NOSTRORVM around a wreath containing VOT./X. However it has an obverse not, as one would expect, of one of the Caesars, but of Constantine I. In all probability, it is a "hybrid" coin similar to the coin of Constantius I which I have mentioned above. Unfortunately the mint mark has not survived.

Following the issue of votive coinage was a series of coins with the reverse legend PROVIDENTIAE AVGG (or CAESS), and usually portraying a camp gate. One of these coins exists in the collection of the Ossaia dig, with an obverse legend of Constantine II. What is odd about this coin is that its mint mark quite clearly reads AQT, denoting the third *officina* of the mint of Aquileia. However, according to *The Roman Imperial Coinage*, the mint of Aquileia did not strike coins of the PROVIDENTIAE series for the simple reason that it was closed at the time.<sup>85</sup> Obviously, this coin bears further inspection for that reason alone; however, leaving aside the mint mark, the type itself is clear enough.

There are two other coins in our collection which were possibly struck during the time of Constantine I, bearing on the obverse the personification of Constantinopolis. Clearly, they were struck to commemorate the founding of Constantinople in A.D. 330,

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<sup>83</sup>Foss 1990, p. 282.

<sup>84</sup>Bruun 1966, p. 512.

<sup>85</sup>Bruun 1966, p.p. 390-1.

but the coins themselves could date to any time between 330 and 333.

We also have three coins, all of the *AE* 3 or 4 type, bearing the reverse legend **GLORIA EXERCITVS** and portraying two soldiers standing on either side of two military standards.<sup>86</sup> These were struck between A.D. 330 and 335, and are thus roughly concurrent with the **CONSTANTINOPOLIS** coinage. One of these is unattributable, one bears the portrait of Constantine II, and the last was struck in the name of Constantius II. None of them have identifiable mint marks, and they are of such a common type that they could have been struck almost anywhere.

For the last two years of Constantine the Great's reign there was only one type of bronze coinage struck at many mints. It, too, bore the **GLORIA EXERCITVS** legend, and its design is similar to that on the coins discussed immediately above, except that there is only one standard between the two soldiers. This type did continue after the death of Constantine, but only one example from before that event is present in the Ossaia collection. It is attributable to Constantine himself.

In the years immediately following the death of Constantine, ending in about A.D. 340 or 341, the main type of bronze coinage continued to be the **GLORIA EXERCITVS** type portraying the soldiers with one standard. However, the mint at Rome did strike variant types, including one bearing the legend **SECVRITAS REIP**, and portraying Securitas leaning on a column. We have one example of this type, struck in the name of Constantius II. Of the more common **GLORIA EXERCITVS** type, we have five, four of

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<sup>86</sup>There were other reverse designs for the **GLORIA EXERCITVS** coinage of this period, but none of them have appeared in our collection.

Constans and one of Constantius II. Unfortunately, only one of them (of Constans) has a legible mint mark, denoting the first *officina* at Aquileia.<sup>87</sup> However, one of the other coins of Constans shows a definite christogram on the standard, which narrows down the possible mints to Lugdunum, Aquileia, or Siscia.<sup>88</sup> These coins are all of the *AE 4* "denomination."

Between A.D. 340 and the introduction of the FEL.TEMP.

REPARATIO coinage in approximately A.D. 348, the main type of bronze coin at the Western mints was an *AE 4* displaying two Victories facing each other. There are four of these in the Ossaia collection. They are all struck in the name of Constans, which is perhaps odd, as coins of this type were also struck in the name of Constantius II at most mints. I can see no reason beyond random chance for the latter's absence from our collection. At any rate, one of these four coins of Constans has a well-preserved mint mark (SMTS) of Thessalonica.

As mentioned above, the "two Victories" type was a product of the Western mints, while a number of other types were struck at Eastern centres. One of these, a votive type celebrating a *vicennalia*, appears in the Ossaia collection, attributable to Constantius II. Unfortunately, its mint mark is illegible, but the most westerly mint at which the type was struck was Heraclea Thracica.<sup>89</sup> Kent has concluded that that entire issue was struck as

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<sup>87</sup>Aquileia re-opened in approximately A.D. 334.

<sup>88</sup>The coin bearing the mint mark of Aquileia also shows a christogram on the standard.

<sup>89</sup>Carson, Hill, and Kent 1965, pp. 35, 110.

late as A.D. 347,<sup>90</sup> but given the difficulties discussed above with the dating of *vota* coinages (namely, determining to which anniversary the coins referred), I am not entirely convinced of that date.<sup>91</sup>

The well-known and much-discussed series of bronze coins bearing the reverse legend FEL.TEMP.REPARATIO began to be struck probably in A.D. 348. There is some doubt about that date, but J.P.C. Kent, both in his 1967 article and his edition of *The Roman Imperial Coinage*, has made a fairly convincing claim for it.<sup>92</sup> The coins themselves were broken into very probably three denominations, and four reverse types.<sup>93</sup> The larger, *AE* 2-size denomination (that which is often referred to as the *centenionalis* - see above), is represented twice in the Ossaia collection. One of these is a "hut" type coin of Constans, struck in the first *officina* at Aquileia. The other is a "horseman" type of Constantius II, the mint mark of which has not survived. Both of these were struck early in that period, with the coin of Constans dating to A.D. 348-350, and that of Constantius II to A.D. 354 at the latest. Contemporary with these is an *AE* 2 of Magnentius of the FELICITAS REIPVBLICE type struck at Trier in A.D. 350 or 351.

Not long thereafter, the larger denomination began to go out of circulation, to be

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<sup>90</sup>Kent 1967, p. 84.

<sup>91</sup>Carson, Hill, and Kent (1965) hint that the issue came later in the period A.D. 341-346 rather than earlier, but do not go into specifics; in any case, even a date late in that period would rule out the date proposed by Kent himself in 1967.

<sup>92</sup>Kent 1967 and 1981, respectively.

<sup>93</sup>Sear (1981) refers to only two denominations; however, given the relatively general intent of that book, I think that can be safely overlooked. Two of the types, denoted by Kent (1967) as the "galley" and "phoenix" types, have not appeared at Ossaia.

replaced by smaller coins, predominantly of the "horseman" type.<sup>94</sup> Ten of these small (*AE* 3), relatively poor coins are present among those found at Ossaia. None of them have a preserved mint mark, and four of them have illegible obverses. Of those that remain, five are of Constantius II, and one has the name of Julian II as Caesar. A smaller (*AE* 4) denomination, bearing the reverse legend *SPES REIPUBLICAE* was struck at the same time, and I have identified two of them, both of Constantius II, in the Ossaia collection. Both this last type and the small "horsemen" ceased to be struck upon the accession of Julian in A.D. 361.

This brings us to the last of the Roman coins in the Ossaia collection. One is a votive *AE* 3 of Jovian, Julian's immediate successor. It celebrates vows for both the *quinquennialia* and *decennalia*, but given the brevity of Jovian's reign (A.D. 363-364) and the resulting certitude that this issue was struck very soon after he took the throne, I must concur with Foss that both sets of vows were *vota suscepta*.<sup>95</sup> The latest Roman coin yet identified in the Ossaia collection is an unremarkable *AE* 3 of Valens, who ruled from A.D. 364 until A.D. 378. No close dating is possible of this coin, which is of the *SECVRITAS REIPVBLICAE* type.

It should be kept in mind that these are merely the identified coins from Ossaia - not discussed for obvious reasons are the 72 coins which have not survived in condition sufficient to allow analysis. I believe, based on their size and the number of these types that have been identified in our collection, that many of these coins belong to the small

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<sup>94</sup>Kent 1967, p. 88.

<sup>95</sup>Foss 1990, p. 308.

bronze issues of the mid-fourth century. Finally, there is one small bronze piece, included among the coins, which is entirely smooth on one side, and divided into six wedge-shaped sections on the other. In the opinion of Dott. Angelo Finetti, it is a later Roman coin which was later converted to some other purpose, perhaps a gaming piece.<sup>96</sup>

This brings the total size of the Ossaia collection to 165 catalogued pieces, an excellent sample from which to begin a more detailed analysis. Placing the identified coins into the context of Reece's chronological breakdown of Roman coinage (Table 1) reveals a clear rise in the frequency of the coins towards the end of the collection.<sup>97</sup> This is hardly surprising for a number of archaeological reasons, beginning with the very basic fact that, with the site in virtually continuous occupation, earlier coins would have likely been "found" during ancient times and removed from the future archaeological record. Another possible explanation, a historical one this time, is that, due to the repeated devaluations which began under Nero, the coinage was no longer worth as much, and thus more coins were needed. This explanation, if significant, would mean that not were only older coins more likely to have been found in antiquity, but there would have been fewer of them to begin with. Finally, it is remotely conceivable that the role of coinage in daily life increased dramatically during the third century; however, given the chaotic economic and social conditions of that time, the reverse would seem more likely. More probable is a slow increase in the role of coinage between the first and fourth centuries, combined with a de-valuation which would have resulted in the minting of more low-value coins.

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<sup>96</sup>Many thanks to Dott. Finetti for examining this piece.

<sup>97</sup>The dates of the Periods and Sub-Periods on table 1 are from Reece 1971.

One interesting anomaly is visible on Table 1 when examining the coinage of the late third century. One would expect coins of Gallienus, Claudius II, and the other emperors of that time to be somewhat sparser in comparison with the fourth century bronze coinage, given the huge reform by Diocletian at the end of the third century, and the probability that, at least in most areas of the Empire, *antoniniani* were out of circulation by A.D. 320.<sup>98</sup> However, a cursory glance at Table 1 reveals this not to be the case. This anomaly is partially explained by the archaeological context in which many of the third century coins have been found. Several of them have been found associated with *firmenlampen* in what we believe to be a small group of infant burials in the extreme North end of the excavated part of the site. Thus these coins would have been out of circulation when they were "lost."

In terms of a comparison between the Ossaia coinage and the data amassed by Dr. Reece at the Cortona Museum for his article on Northern Italy,<sup>99</sup> it can be seen from Table 1 that our site does seem to fit relatively well, if not exactly, into the pattern of coinage finds from that immediate area, until the fourth century finds are taken into consideration. In the fourth century, it is clear that whereas the collection from Ossaia is strongest in this period, there is no parallel upsurge in the Cortona museum collection. I can think of no possible solution for this problem beyond the likelihood that the coins at the Cortona museum were amassed from a large number of sites, from varying periods in history.

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<sup>98</sup>King 1979, p. 80.

<sup>99</sup>Reece 1971.

**TABLE I**  
**COMPARISON OF COIN COLLECTIONS BY PERIOD**

			<b>Ossaia</b>		<b>Cortona Museum</b>	
<b>Per.</b>	<b>SubPer.</b>	<b>Date</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
<b>I</b>		<b>27 B.C.-A.D. 41</b>	<b>2</b>	<b>2.2</b>	<b>130</b>	<b>11.1</b>
<b>II</b>	<b>a</b>	<b>A.D. 41-54</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>3.0</b>
	<b>b,c</b>	<b>A.D. 54-69</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>3.8</b>
<b>III</b>		<b>A.D. 69-96</b>	<b>4</b>	<b>4.3</b>	<b>88</b>	<b>7.5</b>
<b>IV</b>		<b>A.D. 96-117</b>	<b>1</b>	<b>1.1</b>	<b>43</b>	<b>3.7</b>
<b>V</b>		<b>A.D. 117-138</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>5.0</b>
<b>VI</b>		<b>A.D. 138-161</b>	<b>3</b>	<b>3.2</b>	<b>47</b>	<b>4.0</b>
<b>VII</b>	<b>a</b>	<b>A.D. 161-180</b>	<b>4</b>	<b>4.3</b>	<b>76</b>	<b>6.5</b>
	<b>b</b>	<b>A.D. 180-193</b>	<b>1</b>	<b>1.1</b>	<b>46</b>	<b>3.9</b>
<b>VIII</b>	<b>c</b>	<b>A.D. 193-222</b>	<b>2</b>	<b>2.2</b>	<b>26</b>	<b>2.2</b>
<b>IX</b>	<b>a</b>	<b>A.D. 222-238</b>	<b>3</b>	<b>3.2</b>	<b>76</b>	<b>6.5</b>
	<b>b</b>	<b>A.D. 238-259</b>	<b>2</b>	<b>2.2</b>	<b>135</b>	<b>11.5</b>
<b>X</b>		<b>A.D. 259-275</b>	<b>15</b>	<b>16.1</b>	<b>103</b>	<b>8.8</b>
<b>XI</b>		<b>A.D. 275-295</b>	<b>10</b>	<b>10.8</b>	<b>58</b>	<b>5.0</b>
<b>XII</b>		<b>A.D. 295-317</b>	<b>5</b>	<b>5.4</b>	<b>76</b>	<b>6.5</b>
<b>XIII</b>	<b>a</b>	<b>A.D. 317-330</b>	<b>6</b>	<b>6.5</b>	<b>38</b>	<b>3.2</b>
	<b>b</b>	<b>A.D. 330-348</b>	<b>18</b>	<b>19.4</b>	<b>10</b>	<b>0.9</b>
<b>XIV</b>		<b>A.D. 348-364</b>	<b>16</b>	<b>17.2</b>	<b>39</b>	<b>3.3</b>
<b>XV</b>	<b>a</b>	<b>A.D. 364-378</b>	<b>1</b>	<b>1.1</b>	<b>19</b>	<b>1.6</b>
	<b>b</b>	<b>A.D. 378-388</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0.4</b>
<b>XVI</b>	<b>a</b>	<b>A.D. 388-402</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>1.5</b>

**KEY:** Per.: Period   SubPer.: Sub-Period   No.: Number of Coins   %: Percentage of Collection



### Conclusion

There remains, I think, only one major question to be answered, and that is how exactly the collection of coins which we have found at Ossaia came to be present there. I have, in my second chapter, given a very brief over-view of how coinage came to circulate in the Roman Empire in general, but we need to examine the particular case of Etruria, for there are several differences between that region and other areas of the Empire to be observed.

To begin with, the methods of placing coins in circulation in Italy were markedly different than from the rest of the Empire. For one thing, Italy could never have been categorized as a "frontier" area, and thus payments to soldiers are unlikely to have played a large part in getting any kind of coinage into circulation. The exception was the praetorian guard, but their numbers were probably not sufficient to have affected significantly the influx of coinage into the Italian economy. Even given that Rome was at the centre of the bureaucracy, it is unlikely that payments to other officials (secretaries and the like) could have begun to make up the difference.

One thing which must be taken into consideration in the case of Italy as a method of getting coinage into circulation which did not apply to most of the rest of the Empire, was the presence of the state-administered *alimenta*.<sup>100</sup> This program, probably instituted under Trajan (although the idea may originally have been Nerva's<sup>101</sup>), was designed on the

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<sup>100</sup>There is evidence for limited state *alimenta* programs in Egypt and in Greece, but they were primarily an Italian phenomenon. Private *alimenta*, however, were far more wide-spread.

<sup>101</sup>Duncan-Jones 1982.

face of it to provide a guaranteed income for orphan children, using the interest from loans made to land-owners as the source of funds for the program. Although there is no evidence at present that such a scheme was at work at Cortona, Etruria boasts a higher proportion of towns with state *alimenta* than most of the rest of Italy, and this proportion was even higher in neighbouring Umbria.<sup>102</sup> The loans from the state must have been made in cash (nothing else makes sense), and this is backed up to a limited extent by references to the *alimenta* on coins.<sup>103</sup> Furthermore, as the increments in which the *alimenta* was doled out were quite small (16 *sestertii* per male child per month was the highest amount during the reign of Trajan<sup>104</sup>), it is possible that this was one way of introducing the lower-denomination bronze coins into general circulation, although the state may have left the actual procuring of the proper denominations to those who administered the *alimenta*. In any case, the total amount paid out under the alimentary schemes was probably enormous (One billion *sestertii* is one estimate, perhaps exaggerated, for the Trajanic scheme<sup>105</sup>), and the program must have led to a considerable infusion of cash into the economy.

The *alimenta* were but one form of credit available to Italian land-owners, and it seems likely that loans in general were used to place Roman coinage in circulation. As well, imperial endowments, working on much the same principle as the imperial *alimenta*,

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<sup>102</sup>Duncan-Jones 1982, p. 339.

<sup>103</sup>Sear #875 (Sear 1981, p. 128), a *denarius* of Trajan, is one example.

<sup>104</sup>Duncan-Jones 1982, p. 288.

<sup>105</sup>Frank 1940, p. 66.

would have been another way to get coinage into general use. These endowments, which once again relied on interest to create funds, were set up to pay for such things as public building maintenance and games. Like the *alimenta* they could be private as well as state-run. However, as many loans and endowments would have been "one-time-only" affairs, I think it is important to look for other, more regular, ways in which the Romans infused wealth in the form of cash into the Italian economy. As I noted above, in the absence of significant permanent military presence payment of state wages could hardly have had an impact.

Thus I feel that the most likely means of introducing coinage to circulation in Italy was through recurrent state purchases (the Italian mints, for example, would have needed a constant supply of bullion), and from there through a trickle-down effect to the local economies. As the Tiber River was navigable at certain times of the year at least as far as Clusium during the Roman period,<sup>106</sup> an influx of cash into Etruria through short-range trade would not have been too difficult. What, exactly, the site at Ossaia would have been selling remains unconfirmed by archaeological investigation; we suspect the presence of kilns in the area, but as this supposition has yet to be proven through excavation, we have no way of knowing the scale of any pottery-works present.

Of course, any speculation about the source of the coins from Ossaia must remain just that: speculation. This is due in part to the small size of the collection. Although

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<sup>106</sup>Frank 1940, p. 277, citing Pliny the Younger.

165 coins is definitely a respectable group for a young villa excavation,<sup>107</sup> it nonetheless leaves much room for statistical anomalies to distort the picture.

To conclude this thesis, I can only haul out the hoary old cliché that "much work remains to be done" in several areas. First of all, it is time that a detailed study of the Roman coinage of Etruria was performed, going beyond Dr. Reece's statistical summaries.<sup>108</sup> This would allow for much greater comparison between sites, and eventually, between Etruria and other areas of Italy and the Empire. Unfortunately, our ability to perform such a study at this time is hampered by the paucity of properly excavated Roman sites in Etruria (see below). However, the compilation of a database of Roman coin finds in Etruria would be a worthwhile project to commence, incorporating the available data, and allowing for the inclusion of finds from future excavations.

Secondly, the study of coinage in terms of its value to economics is in its infancy, and thus there is still some refinement needed before any data obtained in such a detailed study can be confidently interpreted. As mentioned in my first chapter, a great number of quantitative techniques are being developed and employed in interpreting the ancient economy<sup>109</sup>; it remains to be determined which of them produce the most trustworthy results

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<sup>107</sup>The only other villa examined by me which had a coin sample of comparable size was the site at Settefinestre, with approximately 168 items.

<sup>108</sup>Reece 1971.

<sup>109</sup>On a light note, my personal favourite statistic must be Dr. Duncan-Jones' "Mentions of State *Alimenta* per 10,000 km<sup>2</sup>" (Duncan-Jones 1982, p. 339) - a fairly useless statistic, given that it relies heavily on the proportion of found inscriptions to total inscriptions being constant for all the compared regions.

Finally, much more study of all aspects of the Roman occupation of Etruria is in order. Study of the Roman period in this area has often been subjugated to study of the Etruscans, and it is only relatively recently scholars have begun to examine the impact of the latter's conquerors. This is perhaps due to the view that "not much happened" in Roman Etruria, and that the area was economically and socially barren.<sup>110</sup>

Thus, I can only say at this time that the collection of coinage from the Ossaia villa site provides an excellent sample due both to its size and to its chronological range. It is particularly valuable for the study of fourth century coinage in Etruria, for it is in this chronological period that a significant portion of the collection dwells. With more study on the coin collections from neighbouring sites, a better understanding of the role of coinage in the Romano-Etrurian economy, and of the economy itself, should be attainable.

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<sup>110</sup>Frank 1940, et al.

## WORKS CONSULTED

### ANCIENT SOURCES:

*Agri Cult.* M. Porcius Cato, *De Agri Cultura*, ed. A. Mazzarino. Leipzig: Teubner, 1962.

*Cod. Theo.* *Codex Theodosianus. Leges Novellae ad Theodosianum Pertinentes*, eds. Th. Mommsen and P.M. Meyer. 3rd ed. Berlin: Weidmann, 1962

*Ed. Pret.* *Edictum de Pretiis. Diokletians Preisedikt*, ed. Siegfried Lauffer. Berlin: Walter de Gruyter, 1971

*Livy* *Ab Urbe Condita*, eds. C.F. Walters and R.S. Conway. Oxford: Oxford University Press, 1929

### MODERN SOURCES:

Alram, M. 1989 *Die Münzprägung des Kaisers Maximinus I. Thrax (235/238). Moneta Imperii Romani 27*. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 1989

Alston, R. 1994 "Roman Military Pay from Caesar to Diocletian", *The Journal of Roman Studies*, 84 (1994), 113-23

Barbieri, G. 1964 *Toscana. Le Regioni D'Italia 8*. Torino: Unione Tipografico, 1964

Bruun, P. 1954 "Constantinian Mint Policy and the Imperial *Vota*", *Studies in Constantinian Numismatics*, 1-26. Acta Instituti Romani Finlandiae, 12. Roma: Institutum Romanum Finlandiae, 1991

Bruun, P. 1956 "The System of *Vota* Coinages: Co-Ordination of Issues in the Constantinian Empire", *Studies in Constantinian Numismatics*, 27-36. Acta Instituti Romani Finlandiae, 12. Roma: Institutum Romanum Finlandiae, 1991

Bruun, P. 1962 "Roman Imperial Administration as Mirrored in the IV Century Coinage", *Studies in Constantinian Numismatics*, 49-52. Acta Instituti Romani Finlandiae, 12. Roma: Institutum Romanum Finlandiae, 1991

Bruun, P. 1966 *The Roman Imperial Coinage, Volume 7: Constantine and Licinius*, eds. R.A.G. Carson and C.H.V. Sutherland. London: Spink and Son, 1966

- Bruun, P. 1977 *"Nummi e Centenionales: Nuovi Punti di Partenza della Numismatica Costantiniana"*, *Studies in Constantinian Numismatics*, 127-32. *Acta Instituti Romani Finlandiae*, 12. Roma: Institutum Romanum Finlandiae, 1991
- Bruun, P. 1989 *"From Polis to Metropolis: Notes on Thessalonica in the Administration of the Late Roman Empire"*, *Studies in Constantinian Numismatics*, 157-66. *Acta Instituti Romani Finlandiae*, 12. Roma: Institutum Romanum Finlandiae, 1991
- Callu, J.P. 1969 *La Politique Monétaire des Empereurs Romains de 238 à 311*. Bibliothèque des Écoles Françaises D'Athènes et de Rome 214. Paris: E. de Boccard, 1969
- Carandini, A. et al 1985 *La Romanizzazione dell'Etruria: Il Territorio di Vulci*. Milano: Electa, 1985
- Carson, R.A.G., Hill, P.V., and Kent, J.P.C. 1965 *Late Roman Bronze Coinage A.D. 324-498*. London: Spink, 1965
- Casey, P.J. 1986 *Understanding Ancient Coins: An Introduction for Archaeologists and Historians*. Norman: University of Oklahoma Press, 1986
- Crawford, M. 1970 *"Coinage and Exchange in the Roman World"*, *The Journal of Roman Studies*, 60 (1970), 40-8
- Curnow, P. 1988 *"Coin Lists: Some Problems of the Smaller Site"*, *Coins and the Archaeologist*, eds. J. Casey and R. Reece, 57-72. London: Seaby, 1988
- Curnow, P. and Reece, R. 1969 Appendix to I. Stead, "Verulamium 1966-8", *Antiquity*, 169 (1969), 51-2
- Curri, C.B. 1978 *Vetulonia I. Forma Italiae, Regio VII, 4*. Firenze: Unione Accademica Nazionale, 1978
- Del Chiaro, M. 1991 *"Coins and Brick Stamps from a Roman Villa in Tuscany and Their Chronological Significance"*, *Numismatica e Antichità Classiche*, 21 (1991), 159-72
- Dobbins, J. 1983 *The Excavation of the Roman Villa at La Befà, Italy*. BAR International Series 162. Oxford: BAR, 1983
- Duncan-Jones, R. 1982 *The Economy of the Roman Empire: Quantitative Studies*. 2nd ed. Cambridge: Cambridge University Press, 1982

- Duncan-Jones, R. 1990 *Structure and Scale in the Roman Economy*. Cambridge: Cambridge University Press, 1990
- Ermatinger, J. 1990 "The Circulation Pattern of Diocletian's Nummus", *The American Journal of Numismatics*, ser. 2, 2 (1990), 107-17
- Finetti, A. 1993 *Terni: Le Monete nel Medioevo e la Zecca del 1797*. Perugia: Volumnia, 1993
- Foss, C. 1990 *Roman Historical Coins*. London: Seaby, 1990
- Fracchia, H. and Gualtieri, M. Unpublished "Etruscan and Roman Cortona: New Evidence from the Southeastern Val di Chiana". Unpublished
- Frank, T. 1940 *An Economic Survey of Ancient Rome 5: Rome and Italy of the Empire*. Baltimore: Johns Hopkins Press, 1940
- Fulford, M. 1978 "Coin Circulation and Mint Activity in the Late Roman Empire: some economic implications", *The Archaeological Journal*, 135 (1978), 67-114
- Göbl, R. 1993 *Die Münzprägung des Kaisers Aurelianus (270/275)*. Moneta Imperii Romani 47. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 1993
- Greene, K. 1986 *The Archaeology of the Roman Economy*. Berkeley: University of California Press, 1986
- Harris, W.V. 1971 *Rome in Etruria and Umbria*. Oxford: Oxford University Press, 1971
- Hopkins, K. 1980 "Taxes and Trade in the Roman Empire (200 B.C.-A.D. 400)", *The Journal of Roman Studies*, 70 (1980), 101-25
- Howgego, C. 1990 "Why Did Ancient States Strike Coins?", *The Numismatic Chronicle*, 150 (1990), 1-25
- Howgego, C. 1992 "The Supply and Use of Money in the Ancient World: 200 B.C. to A.D. 300", *The Journal of Roman Studies*, 82 (1992), 1-31
- Howgego, C. 1994 "Coin Circulation and the Integration of the Roman Economy", *Journal of Roman Archaeology*, 7 (1994), 5-21



- Jones, A.H.M. 1956 "Numismatics and History", *Essays in Roman Coinage Presented to Harold Mattingly*, eds. R.A.G. Carson and C.H.V. Sutherland, 13-33. Oxford: Oxford University Press, 1956
- Jones, A.H.M. 1974 *The Roman Economy: Studies in Ancient Economic and Administrative History*. New Jersey: Rowman and Littlefield, 1974
- Jones, J.M. 1990 *A Dictionary of Ancient Roman Coins*. London: Seaby, 1990
- Kent, J.P.C. 1967 "Fel.Temp.Reparatio", *The Numismatic Chronicle*, ser. 7, 7 (1967), 83-90
- Kent, J.P.C. 1978 *Roman Coins*. Rev. Ed. London: Thames and Hudson, 1978
- Kent, J.P.C. 1981 *The Roman Imperial Coinage, Volume 8: The Family of Constantine I, A.D. 337-364*, eds. R.A.G. Carson and C.H.V. Sutherland. London: Spink and Son, 1981
- Kent, J.P.C. 1988 "Interpreting Coin Finds", *Coins and the Archaeologist*, eds. J. Casey and R. Reece, 201-217. London: Seaby, 1988
- King, C.E. 1975 "Quadrantes from the River Tiber", *The Numismatic Chronicle*, ser. 7, 15 (1975), 56-90
- King, C.E. 1979 "The Value of Hoards and Site Finds in Relation to Monetary Circulation in the Late Third and Early Fourth Centuries A.D.", *Studien zu Fundmünzen der Antike*, 1, 79-98
- Ladich, M. 1990 *La Moneta Romana di Bronzo Tardoantica (379-498)*. Edizioni STEA, 1990
- Laing, L.R. 1969 *Coins and Archaeology*. London: Weidenfeld & Nicolson, 1969
- Mattingly, H. 1960 *Roman Coins from the Earliest Times to the Fall of the Western Empire*. 2nd ed. London: Methuen, 1960
- Mattingly, H. and Sydenham, E.A. 1923 *The Roman Imperial Coinage, Volume 1: Augustus to Vitellius*. London: Spink and Son, 1923
- Mattingly, H. and Sydenham, E.A. 1962 *The Roman Imperial Coinage, Volume 2: Vespasian to Hadrian*. London: Spink and Son, 1962

- Neppi Modona, A. 1977 *Cortona Etrusca e Romana nella Storia e nell'Arte*. Studi -  
Accademia Toscana di Scienze e Lettere "La Columbaria" 45. Firenze: Leo S.  
Olschki, 1977
- Pearce, J.W.E. 1951 *The Roman Imperial Coinage, Volume 9: Valentinian I -  
Theodosius I*, eds. R.A.G. Carson and C.H.V. Sutherland. London: Spink and  
Son, 1951
- Pharr, C. 1952 *The Theodosian Code and Novels and the Sirmondian Constitutions*,  
trans. Clyde Pharr. New York: Greenwood Press, 1952
- Potter, T.W. 1987 *Roman Italy*. Berkeley: University of California Press, 1987
- Prete Pedrini, M.R. 1963 *Umbria*. Le Regioni D'Italia 9. Torino: Unione  
Tipografica, 1963
- Rasmussen, T. 1991 "Tuscania and Its Territory", *Roman Landscapes:  
Archaeological Survey in the Mediterranean Region*, eds. G. Barker and J.  
Lloyd, 106-14. Archaeological Monographs of the British School at Rome 2.  
London: British School at Rome, 1991
- Reece, R. 1967 "Roman Coinage in Southern France", *The Numismatic Chronicle*,  
ser. 7, 7 (1967), 91-106
- Reece, R. 1968 "Summary of Roman Coins from Richborough", *Fifth Report on  
the Excavations of the Roman Fort at Richborough, Kent*, ed. B.W. Cunliffe,  
200-17. London: The Society of Antiquaries, 1968
- Reece, R. 1971 "Roman Coinage in Northern Italy", *The Numismatic Chronicle*,  
ser. 7, 11 (1971), 167-79
- Reece, R. 1973 "Roman Coinage in Britain and the Western Empire", *Britannia*, 4  
(1973), 227-51
- Reece, R. 1985 "Rome in the Mediterranean World: The Evidence of Coins",  
*Papers in Italian Archaeology IV*, eds. C. Malone and S. Stoddart, 89-98.  
Oxford: BAR, 1985
- Reece, R. 1988 "Clustering of Coin Finds in Britain, France and Italy", *Coins and  
the Archaeologist*, eds. J. Casey and R. Reece, 86-101. BAR International  
Series 246. London: Seaby, 1988
- Ricci, S. 1937 *Storia della Moneta in Italia: Parte Antica*. Padova: Dott. Antonio  
Milani, 1937

- Sear, D.R. 1981 *Roman Coins and Their Values*. 3rd ed. London: Seaby, 1981
- Sutherland, C.H.V. 1967 *The Roman Imperial Coinage, Volume 6: From Diocletian's Reform (A.D. 294) to the Death of Maximinus (A.D. 313)*, eds. R.A.G. Carson and C.H.V. Sutherland. London: Spink and Son, 1967
- Sutherland, C.H.V. 1976 *The Emperor and the Coinage: Julio-Claudian Studies*. London: Spink and Son, 1976
- Szaivert, W. 1986 *Der Münzprägung der Kaiser Marcus Aurelius, Lucius Verus und Commodus (161/192)*. *Moneta Imperii Romani* 18. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 1986
- Torelli, M. 1982 *Etruria*. 2nd ed. Roma: Laterza, 1982
- Vittorio, A. 1985 "Le Monete", *Settefinestre: Una Villa Schiavistica nell'Etruria Romana 2: La Villa e i Suoi Reperti*, ed. A. Ricci, 255-63. Modena: Edizioni Panini, 1985
- Weigel, R.D. 1990 "Gallienus' 'Animal Series' Coins and Roman Religion", *The Numismatic Chronicle*, 150 (1990), 135-44
- Webb, P.H. 1962 *The Roman Imperial Coinage, Volume 5*, eds. H. Mattingly and E.A. Sydenham. London: Spink and Son, 1962
- West, L.C. 1951 "The Coinage of Diocletian and the Edict on Prices", *Studies in Roman Economic and Social History in Honor of Allan Chester Johnson*, ed. P.R. Coleman-Norton, 290-302. New Jersey: Princeton University Press, 1951
- Whittaker, C.R. 1990 "The Consumer City Revisited: The *Vicus* and the City", *Journal of Roman Archaeology*, 3 (1990), 110-8

## APPENDIX I - GLOSSARY

**AE1,2,3,4:** A system used to identify fourth century bronze denominations, when the actual name of the denomination is not known. AE1 is the largest bronze denomination, AE4 the smallest.

**Antoninianus:** A very common type of coin in struck through most of the 3rd century A.D. Although begun as a silver denomination, subsequent devaluations later reduced it to merely silver-washed bronze. The obverse of this denomination bore the radiate head of the emperor, and thus the coins are often referred to as "radiates."

**As:** A bronze or copper denomination struck from Republican times to the reign of Diocletian.

**Aureus:** A gold coin struck from Republican times to the fourth century A.D. It was replaced under Constantine I with the *Solidus*.

**Centenionalis:** Usually refers to a denomination of large, bronze, mid-fourth century A.D. coins bearing the legend "FEL.TEMP.REPARATIO" on the reverse. As the term is occasionally applied to other denominations, I have decided not to use it at all in this thesis.

**Cuirassed:** Wearing a breastplate. Used to describe obverse portraits.

**Denarius:** The basic unit of Roman currency. The *denarius* was introduced during the late third century B.C., and lasted until the reign of Diocletian. Usually silver, it became a silver-washed bronze coin by the middle of the third century A.D.

**Draped:** Wearing a toga or cloak. Used to describe obverse portraits.

**Dupondius:** A bronze coin valued at 2 *asses*. First struck in Republican times, the Dupondius lasted until roughly the reign of Diocletian. It can be differentiated on sight from the *as* by the fact the obverse portrait is usually radiate.

**Follis:** A term usually used to describe a large bronze or silver-washed denomination introduced by Diocletian after his coinage reforms.

**Laureate:** Wearing a laurel wreath.

**Mint Mark:** A series of 3 or 4 letters, usually on the reverse of a coin, identifying the mint at which the coin was struck, and occasionally the *officina* as well. Mint marks first appear on coins of the late-second century A.D.

**Obverse:** The side of the coin upon which, in Imperial times, was depicted the head of the emperor, a member of his family, or a deity, with an accompanying legend giving the name and titles of the person portrayed.

**Officina:** The actual workshop in which coins were struck. Each mint was divided into a certain number of *officina*, which are often noted by a letter or number at the end of the mint mark.

**Quadrans:** The lowest denomination of Roman bronze coin.

**Radiate (1):** Another commonly-used term for the *antoninianus* denomination.

**Radiate (2):** Wearing a crown with rays emanating from it (a Corona). Used to describe obverse portraits.

**Reverse:** Opposite of Obverse. This side of the coins often bore images of deities or personifications, and was used as an outlet for propaganda.

**Sestertius:** The largest denomination of Roman *Aes* coinage.

**Solidus:** A gold denomination issued first under Constantine I, and designed to replace the *aureus*.

## APPENDIX II: OSSAIA/LA TUFA COIN LIST

Unidentified/Undated Coins

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

13 mm. x 12 mm.

Found June 21, 1993, Area 1, Quadrant  
F24 I, Layer 19.

SF#: 92-023B

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

17 mm. x 15 mm.

Found July 20, 1992, Area 1, Quadrant  
F24, Layer 2.

SF#: 92-029

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

13 mm. x 12 mm.

Found July 28, 1992, Area 1, Quadrant  
F25 IV, Layer 9.

SF#: 92-036 MF#: 27

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

14 mm. x 13 mm.

Found July 22, 1992, Area 1, Quadrant  
F23 IV, Layer 10.

SF#: 92-037A

AE

17 mm. x 16 mm.

Found July 31, 1992, Area 1, Quadrant  
G25 II, Layer 9.

SF#: 92-041 MF#: 41

Notes: One side totally smooth, the other  
divided by 3 diameter lines - probably late  
antique reworking of coin.

AE

**OBVERSE:** Hd. r.**REVERSE:** Illegible13 mm. x 13 mm. Area 2, Quadrant D31  
IV, Layer 8.

SF#: 92-042

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

14 mm. x 12 mm.

Found July 22, 1992, Area 2, Quadrant  
D31 IV, Layer 8.

SF#: 92-042B

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

14 mm. x 12 mm.

Found July 22, 1992, Area 2, Quadrant  
D31 IV, Layer 8.

SF#: 92-042C

AE

**OBVERSE:** Hd. r.**REVERSE:** Illegible 16 mm. x 15 mm.Found July 27, 1992, Area 1, Quadrant  
E25 I, Layer 5/12.

SF#: 92-043 MF#: 25

AE

**OBVERSE:** Illegible**REVERSE:** Illegible

17 mm. x 12 mm.

Found July 21, 1992, Area 2, Quadrant  
D32 IV, Layer 8.

SF#: 92-046

Notes: Broken fragment

**AE**

**OBVERSE:** IMP.CO[...]. Cuir. bust r.

**REVERSE:** Figure stg. with shield and spear?

14 mm. x 14 mm.

Found July 28, 1992, Area 2, Quadrant D32 II, Layer 28.

SF#: 92-051

**AE**

**OBVERSE:** Bust r.

**REVERSE:** Illegible

15 mm. x 14 mm.

Found July 16, 1992, Area 2, Quadrant D31 IV, Layer 8.

SF#: 92-052 MF#: 5

**AE**

**OBVERSE:** Diad. hd. r.

**REVERSE:** Figure stg. l., in ex. [LX].

13 mm. x 12 mm.

Found July 30, 1992, Area 1, Quadrant E24 I, Layer 12.

SF#: 92-053

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

9 mm. x 7 mm.

Found July 21, 1992, Area 2, Quadrant D32 II, Layer 8.

SF#: 92-055

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

11 mm. x 11 mm.

Found July 22, 1992, Area 1, Quadrant F25 III, Layer 9.

SF#: 92-056 MF#: 15

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

11.5 mm. x 10.5 mm.

Found July 15, 1992, Area 2, Quadrant D33 I and II, Layer 2/8.

SF#: 92-057

**AE**

**OBVERSE:** CONSTA[N...]. Diad. hd. r.

**REVERSE:** 2 figures.

14.5 mm. x 14 mm.

Found July 22, 1992, Area 2, Quadrant D30 III, Layer 8.

SF#: 92-058

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

12.5 mm. x 12 mm.

Found July 15, 1992, Area 1, Quadrant F23, Layer 2.

SF#: 92-059

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

15 mm. x 14 mm.

Found July 30, 1992, Area 1, Quadrant E24 II, Layer 12.

SF#: 92-060

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

13 mm. x 12 mm.

Found July 23, 1992, Area 2, Quadrant D31 III, Layer 8.

SF#: 92-064

**AE**

**OBVERSE:** Diad. hd. r.

**REVERSE:** Illegible

Found July 23, 1992, Area 2, Quadrant

D31 III, Layer 8.

SF#: 92-065

**AE**

**OBVERSE:** Illegible

**REVERSE:** [...]C[C...]. 2 figures.

12 mm. x 12 mm.

Found July 23, 1992, Area 2, Quadrant

D31 III, Layer 8.

SF#: 92-066

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

14 mm. x 13 mm.

Found July 20, 1992, Area 1, Quadrant

D23, Layer 2.

SF#: 92-067

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

18 mm. x 16 mm.

Found July 21, 1992, Area 2, Quadrant

D30 III, Layer 2.

SF#: 92-069

Notes: One side has letters - [INOV].

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

12 mm. x 10 mm.

Found July 17, 1992, Area 3, Quadrant

G22, Layer 1.

SF#: 92-071

Notes: Broken fragment.

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

16 mm. x 15 mm.

Found July 21, 1992, Area 2, Quadrant

D31 IV, Layer 8.

SF#: 92-073

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

7 mm. x 6 mm.

Found July 21, 1992, Area 2, Quadrant

D32 II, Layer 8.

SF#: 92-076

Notes: Broken fragment; One side has letters - [...]OR[...].

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

13 mm. x 13 mm.

Found July 21, 1992, Area 2, Quadrant

D30 III, Layer 2.

SF#: 92-100

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

16 mm. x 15 mm.

Found July 21, 1992, Area 2, Quadrant

D30 III, Layer 2/8.

SF#: 92-103

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** 2 Victories stg. facing each other.

13.5 mm. x 13 mm.

Found June 11, 1993, Area 2, Quadrant

C33 III, Layer 28.

SF#: 93-009



**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

17 mm. x 16 mm.

Found June 18, 1993, Area 1, Quadrant  
E24 III, Layer 19.

SF#: 93-021

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

19 mm. x 18 mm.

Found June 15, 1993, Area 1, Quadrant  
D24 IV, Layer 19.

SF#: 93-055

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

13 mm. x 8 mm.

Found June 4, 1993, Area 1, Quadrant G23  
I, Layer 2.

SF#: 93-056

Notes: Broken fragment

**AE**

**OBVERSE:** Illegible

**REVERSE:** illegible

15 mm. x 12 mm.

Found June 15, 1993, Area 1, Quadrant  
E24 IV, Layer 19.

SF#: 93-057

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

15 mm. x 14 mm.

Found June 9, 1994, Area 2, Quadrant C31  
III, Layer 2.

SF#: 94-001

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

13 mm. x 12 mm.

Found June 15, 1994, Area 2, Quadrant  
C32 IV, Layer 8.

SF#: 94-010 MF#: 66

Notes: Broken - 2 Pieces

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

15.5 mm. x 14 mm.

Found June 17, 1994, Area 2, Quadrant  
D32 I, Layer 8.

SF#: 94-016

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Female figure stg. l. 18 mm. x  
16 mm.

Found July 5, 1994, Area 1, Quadrant  
Spoil Heap, Layer Spoil Heap.

SF#: 94-081

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

11 mm. x 10.5 mm.

Found July 23, 1994, Area 1, Quadrant  
G22 III, Layer 23.

SF#: 94-105

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

15 mm. x 13 mm.

Found July 12, 1994, Area 2, Quadrant  
D32 I, Layer 162.

SF#: 94-111

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

14 mm. x 13.5 mm.

Found July 19, 1994, Area 1, Quadrant  
G22 III, Layer 23.

SF#: 94-117 MF#: 125

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

16 mm. x 15 mm.

Found July 13, 1994, Area 1, Quadrant  
G22 III, Layer 23.

SF#: 94-121 MF#: 106

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Figure stg. l.

14 mm. x 14 mm.

Found July 14, 1994, Area 1, Quadrant  
G22 III, Layer 23.

SF#: 94-128 MF#: 109

**AE**

**OBVERSE:** Bust r.

**REVERSE:** Illegible

16 mm. x 13.5 mm.

Found July 14, 1994, Area 1, Quadrant  
G22 III, Layer 23.

SF#: 94-151 MF#: 108

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

13.5 mm. x 12 mm.

Found July 19, 1994, Area 3, Quadrant  
E22 I, Layer 178.

SF#: 94-169

**AE**

**OBVERSE:** [...]CONSTA[...].

**REVERSE:** Illegible

16 mm. x 16 mm. Area 2, Quadrant B34  
III, Layer 192.

SF#: 94-207

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

12 mm. x 12 mm.

Found July 25, 1994, Area 1, Quadrant  
E25 IV, Layer 163.

SF#: 94-226 MF#: 140

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

15 mm. x 14 mm.

Found July 28, 1994, Area 1, Quadrant  
E25 II, Layer 169.

SF#: 94-230 MF#: 145

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

10 mm. x 9 mm.

Found July 21, 1994, Area 1, Quadrant  
F27 I, Layer 205.

SF#: 94-254 MF#: 130

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

14 mm. x 10 mm.

Found July 18, 1994, Area 1, Quadrant  
G22 III, Layer 23.

SF#: 94-255 MF#: 110

Notes: Broken fragment

AE  
**OBVERSE:** Illegible  
**REVERSE:** Illegible  
 16 mm. x 16 mm.  
 Found June 17, 1994, Area 2, Quadrant  
 Spoil Heap, Layer Spoil Heap.  
 SF#: 94-256

AE  
**OBVERSE:** Illegible  
**REVERSE:** Illegible  
 9 mm. x 8 mm.  
 Found May 30, 1995, Area 1, Quadrant  
 G25 IV, Layer 109.  
 SF#: 95-010 MF#: 154

AE  
**OBVERSE:** Illegible  
**REVERSE:** Illegible  
 18 mm. x 17 mm. Area 3, Quadrant E20 II,  
 Layer 2.  
 SF#: 95-012 MF#: 155

AE  
**OBVERSE:** Hd. r.  
**REVERSE:** [...]S[E]X[...]. Figure stg. I.  
 21 mm. x 19 mm.  
 Found June 5, 1995, Area 2, Quadrant C30  
 I, Layer 136.  
 SF#: 95-020

AE  
**OBVERSE:** Hd. r.  
**REVERSE:** Illegible  
 16 mm. x 15 mm. Area 2, Quadrant C30  
 III, Layer 227.  
 SF#: 95-022 MF#: 167

AE  
**OBVERSE:** Hd. r.  
**REVERSE:** Illegible  
 26 mm. x 25 mm.  
 Found June 6, 1995, Area 2, Quadrant C30  
 II, Layer 227.  
 SF#: 95-037

AE  
**OBVERSE:** Illegible  
**REVERSE:** Illegible  
 18.5 mm. x 18.5 mm.  
 Found June 5, 1995, Area 2, Quadrant C30  
 I, Layer 227.  
 SF#: 95-050

AE  
**OBVERSE:** Illegible  
**REVERSE:** Illegible  
 26 mm. x 22 mm.  
 Found June 2, 1995, Area 2, Quadrant C31  
 I, Layer 227.  
 SF#: 95-057

AE  
**OBVERSE:** Illegible  
**REVERSE:** Figure adv. I.  
 16 mm. x 15 mm.  
 Found June 7, 1995, Area 3, Quadrant E20  
 I, Layer 2.  
 SF#: 95-070 MF#: 176

AE  
**OBVERSE:** Illegible  
**REVERSE:** Illegible  
 8 mm. x 8 mm.  
 Found June 22, 1995, Area 2, Quadrant  
 B32 II, Layer 266.  
 SF#: 95-175 MF#: 197

**AE**

**OBVERSE:** Diad. hd. r.

**REVERSE:** 2 Victories stg. facing each other holding wreaths.

14 mm. x 14 mm.

Found June 26, 1995, Area 1, Quadrant G22 III, Layer 88.

SF#: 95-190 MF#: 206

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

19 mm. x 17.5 mm.

Found June 26, 1995, Area 1, Quadrant G22 III, Layer 88.

SF#: 95-220 MF#: 215

**AE**

**OBVERSE:** Hd. r.

**REVERSE:** Illegible

17 mm. x 17 mm.

Found July 3, 1995, Area 2, Quadrant C30 IV, Layer 227.

SF#: 95-246

**AE**

**OBVERSE:** [...LI...]. Rad. hd. r.

**REVERSE:** [...]Q[...].

20 mm. x 18 mm.

Found July 3, 1995, Area 3, Quadrant F21 I, Layer 17.

SF#: 95-251 MF#: 239

**AE**

**OBVERSE:** Illegible

**REVERSE:** Illegible

14 mm. x 13 mm.

Found July 6, 1995, Area 2, Quadrant C30 IV, Layer 227.

SF#: 95-270

**AE AE4**

**OBVERSE:** Hd. or bust r.

**REVERSE:** Figure stg. l. holding spear.  
15 mm. x 14 mm.

Found June 11, 1993, Area 2, Quadrant C34 IV, Layer 28.

SF#: 93-053

**AE AE4**

**OBVERSE:** Cuir. bust r.

**REVERSE:** Illegible

16 mm. x 16 mm.

Found June 17, 1994, Area 2, Quadrant C31 III, Layer 8.

SF#: 94-013 MF#: 71

**AE AE4**

**OBVERSE:** [...CO]NSTA[N...]. Hd. r.

**REVERSE:** Illegible

14 mm. x 12 mm.

Found June 24, 1994, Area 2, Quadrant D32 I, Layer 8.

SF#: 94-066 MF#: 88

**AE AE4**

**OBVERSE:** Diad. hd. r.

**REVERSE:** Illegible

14 mm. x 13 mm.

Found June 26, 1995, Area 2, Quadrant B32 I, Layer 246.

SF#: 95-189

**AE Antoninianus**

**OBVERSE:** Rad., cuir. bust r.

**REVERSE:** Illegible

22 mm. x 20 mm.

Found July 17, 1992, Area 3, Quadrant G22, Layer 1.

SF#: 92-070

**AE Antoninianus**

**OBVERSE:** IMP.[...]. Rad. hd. r.

**REVERSE:** Male figure (Mars?) adv. l., holding spear, shield at feet.

21 mm. x 20 mm.

Found July 4, 1995, Area 2, Quadrant C30 IV, Layer 227.

SF#: 95-263 MF#: 243

### Coins of the Julio-Claudians

**AE As of Augustus, 27 B.C.- A.D. 14.**

**OBVERSE:** Hd. l.

**REVERSE:** Illegible

29 mm. x 27 mm.

Found July 19, 1994, Area 2, Quadrant B34 IV, Layer 172.

SF#: 94-185 MF#: 127

**AE As of Tiberius, A.D. 36-37.**

**OBVERSE:** [T]I.CAESAR DIVI

AVG.F.AVGVST].IMP.VIII. Laur. hd. l.

**REVERSE:**

[P]ONTIF.MAX.TR[IB?].POT.XXXIIX.[S.C]. Rudder and globe.

28 mm. x 27 mm.

Found June 15, 1994, Area 2, Quadrant D35 III, Layer 131.

SF#: 94-026 MF#: 65

### Coins of the Flavians

**AE As of Domitian, A.D. 73.**

**OBVERSE:** CAESAR

AVG.F.DOMITIAN.COS.II. Laur. hd. l.

**REVERSE:** Figure stg. l.

27 mm. x 26 mm.

Found August 4, 1992, Area 3, Quadrant G22 I, Layer 54.

SF#: 92-047

**AE As of Vespasian, A.D. 74.**

Mint: Rome.

**OBVERSE:** IMP.CAESAR

VESP.AVG.COS.V.CENS. Laur. hd. l.

**REVERSE:** AE[QVITAS AVG]VST.S.C.

Equity stg. l., holding scales and rod.

27 mm. x 26.5 mm.

Sear 701, RIC 557b.

Found June 5, 1995, Area 2, Quadrant C30 I, Layer 136.

SF#: 95-019

**AE As of Titus, A.D. 80.**

Mint: Rome.

**OBVERSE:**

IMP.T.CAES.VESP.AVG.P.M.TR.P.COS.V III. Laur. hd. r.

**REVERSE:** VICTORIA AVGVST.S.C.

Victory stg. l. on prow.

29 mm. x 28 mm.

Found June 9, 1994, Area 2, Quadrant D33 IV, Layer 8.

SF#: 94-002 MF#: 62

**AE As of Domitian, A.D. 81-96.**

**OBVERSE:**

[IMP.CAES].DOM[IT...CO]S.VII.C[ENS...]  
. Laur. hd. r.

**REVERSE:** [...]S.C. Female figure stg. l.

27 mm. x 25 mm.

Found July 21, 1992, Area 2, Quadrant D32 II, Layer 8.

SF#: 92-074

### From Trajan to Commodus

**AE Quadrans of Trajan, A.D. 98-117.**

**OBVERSE:** Hd. r.

**REVERSE:** S.C. Club.

14.5 mm. x 14 mm.

Found July 15, 1994, Area 3, Quadrant Sporadic, Layer Sporadic.

SF#: 94-170

**AE As of Antoninus Pius, A.D. 138.**

**Mint:** Rome.

**OBVERSE:**

[IMP.T].AEL.[CAES.HADR.ANTONINVS  
AVG.PIVS.]. Bare hd. r.

**REVERSE:**

[P.M.TR.POT.COS.DES.II.S.C]. Equity  
stg. l., holding scales and cornucopia.  
26 mm. x 23 mm.

**RIC** 525.

**Found** June 5, 1995, Area 2, Quadrant C30  
I, Layer 227.

**SF#:** 95-053

**AE Sestertius of Antoninus Pius, A.D.**  
138-161.

**OBVERSE:** [ANTONINVS AV]G PI[VS  
P.P....]. Laur. hd. r.

**REVERSE:** [...].S.C. Female figure stg. l.,  
altar at feet. 29 mm. x 29 mm.

**Found** July 25, 1994, Area 2, Quadrant  
D33 III, Layer 68.

**SF#:** 94-253

**AE As of Marcus Aurelius, A.D. 161.**

**OBVERSE:** AVRELIVS CAESAR  
AVG.PII F. Bare hd. r.

**REVERSE:** TR.POT.X[?].COS.III.S.C.  
Draped figure stg. l., holding spear.  
26 mm. x 26 mm.

**C.** 789. Area 1, Quadrant G24, Layer I.

**SF#:** 92-040 **MF#:** 31

**AE Sestertius of Lucilla, A.D. 161-169.**

**OBVERSE:** [LUCI]L[LA] AV[GVSTA].  
Dr. bust r.

**REVERSE:** [PIETAS] S.C.

29 mm. x 29 mm.

**RIC** 1755 (under Marcus Aurelius). Area 2,  
Quadrant C32 IV, Layer 162.

**SF#:** 94-198 **MF#:** 135

**AE As of Faustina Junior, A.D. 145-175.**

**OBVERSE:** [FA]VSTINA [...]. Dr. bust r.

**REVERSE:** Female figure stg. l., r. arm  
raised, possibly holding patera.

27 mm. x 26 mm.

**C.** 250.

**Found** July 21, 1992, Area 2, Quadrant  
D33 IV, Layer 66.

**SF#:** 94-251 **MF#:** 128

**AR Denarius of Faustina Junior, A.D.**  
161-175.

**OBVERSE:** FAVSTINA AVGVSTA.

Diad., dr. bust r.

**REVERSE:** IVNONI REGINAE. Juno  
stg. l., holding patera and sceptre, peacock  
at feet.

18 mm. x 17 mm.

**RIC** 695 (under Marcus Aurelius).

**Found** June 20, 1995, Area 2, Quadrant  
C31 III, Layer 237.

**SF#:** 95-114 **MF#:** 190

**AE As of Marcus Aurelius, A.D. 177.**

**OBVERSE:** [M.ANT]ONINVS  
AVG.GERM.SARM.[TR.P.XXXI]. Laur.  
hd. r.

**REVERSE:** IMP.VIII.COS.III.P.P.PAX  
AETERNA AVG.S.C. Peace stg. l.,  
setting fire to pile of arms and holding  
cornucopia.

26 mm. x 25 mm.

**Sear** 1355, **RIC** 1205.

**Found** June 17, 1993, Area 2, Quadrant  
C34 I, Layer 2.

**SF#:** 93-022

**AE Dupondius of Commodus, A.D.**  
181-192.

**OBVERSE:** M.COMMOD[VS  
AN]TONINVS AVG. Rad. hd. r.  
**REVERSE:** [...]COS.III[P.P].S.C. Female  
figure stg. l. holding sceptre? in l. hand  
and object in r.  
26 mm. x 24 mm.  
Found July 3, 1995, Area 3, Quadrant G22  
IV, Layer 27.  
SF#: 95-254 MF#: 230

### Coins of the Severans

**AE As of Septimius Severus, A.D.**  
193-211.

Mint: Rome.  
**OBVERSE:**  
[L.SEPT.S]EV.PERT.[AVG.IMP....]. Laur.  
hd. r.  
**REVERSE:** [...]S.C. Possibly helm. figure  
stg. r., holding spear or sceptre over l.  
shoulder, and possible branch in r. hand.  
24 mm. x 23 mm.  
Found May 24, 1995, Area 1, Quadrant  
H24 I, Layer 2.  
SF#: 95-001 MF#: 146

**AE Sesterius of Septimius Severus, A.D.**  
193-211.

Mint: Rome.  
**OBVERSE:** [L.S]EPT.SEV.[...]. Laur. hd.  
r.  
**REVERSE:** Female figure stg. or adv. r.  
29.5 mm. x 26 mm.  
Found June 15, 1993, Area 1, Quadrant  
D25 I, Layer 77.  
SF#: 93-004

**AE Sestertius of Severus Alexander, A.D.**  
233.

**OBVERSE:** IMP.ALEXANDER PIVS  
AVG. Laur., dr., cuir. bust r.  
**REVERSE:** P.M.T.R.P.XII.COS.III.P.P.  
Sol adv. l., wearing mantle, carrying whip,  
and raising r. hand.  
31 mm. x 30 mm.  
Bant 119, RIC 535.  
Found July 5, 1995, Area 3, Quadrant F20  
I, Layer 2.  
SF#: 95-264

### From Maximinus I to Trebonianus Gallus

**AE Sestertius of Maximinus I, A.D.**  
235-236.

**OBVERSE:** IMP.MAXIMINVS PIVS  
AVG. Laur., dr., cuir bust r. **REVERSE:**  
SALVS [AVGVSTI]S.C. Health std. l.,  
feeding serpent rising from altar.  
27 mm. x 29 mm.  
Bant 23, RIC 64.  
Found July 29, 1992, Area 3, Quadrant  
G22 IV, Layer 27.  
SF#: 92-048 MF#: 36

**AE Sestertius of Maximinus I, A.D.**  
236-237.

**OBVERSE:** MAXIMINVS PIVS  
AVG.GERM. Laur., dr., cuir. bust r.  
**REVERSE:** PAX AVGVSTI S.C. Pax  
stg. l., holding olive branch. 31 mm. x 29  
mm.  
Sear 2253, Bant 12, RIC 81.  
Found June 19, 1995, Area 2, Quadrant  
B32 II, Layer 2/8.  
SF#: 95-138 MF#: 182

AE Sestertius of Gordian III, A.D.  
241-243.  
**OBVERSE:** IMP.GORDIANVS PIVS  
FEL.AVG. Laur., dr., cuir bust r.  
**REVERSE:** LIBE[RTAS] AV[G.S.C].  
Liberty stg. l., holding sceptre and pileus.  
30 mm. x 30 mm.  
Sear 2391, Bant 51, RIC 318a.Area 3,  
Quadrant G22 IV, Layer 27.  
SF#: 92-038A MF#: 35

AE Sesterius of Trebonianus Gallus, A.D.  
253.  
Mint: Rome.  
**OBVERSE:** IMP.C[AE]S.[C.VIBIVS  
TREBONIANVS GALL]VS AVG. Laur.,  
dr., cuir. bust r.  
**REVERSE:**  
P.M.TR.P.III.[COS.II.P.P].S.C.  
Trebonianus stg. l. dressed as priest,  
holding sceptre and branch.  
31 mm. x 29 mm.  
Bant 26, RIC 99.  
Found June 2, 1995, Area 2, Quadrant C31  
I, Layer 227.  
SF#: 95-064 MF#: 160

**From Gallienus to the Reforms of  
Diocletian**

AE/AR Antoninianus of Salonina, A.D.  
257-268.  
**OBVERSE:** [SA]LONINA AVG. Diad,  
dr. bust r. on crescent. **REVERSE:** IVNO  
REGINA. Juno stg. l.  
21.5 mm. x 20 mm.  
Sear 2940, RIC 29 etc. (Joint Reign).  
Found June 20, 1994, Area 2, Quadrant  
C32 I, Layer 2.  
SF#: 94-039

AE/AR Antoninianus of Gallienus, A.D.  
260-268.  
Mint: Rome.  
**OBVERSE:** GALLIENVS AVG. Rad. hd.  
r.  
**REVERSE:** DIANAE CONS.AVG.  
Antelope adv. or stg. r.  
25 mm. x 21 mm.  
C. 162 or 165, RIC 180.  
Found July 27, 1992, Area 3, Quadrant  
G22 IV, Layer 18.  
SF#: 92-049

AE/AR Antoninianus of Gallienus, A.D.  
260-268.  
Mint: Rome.  
**OBVERSE:** GAL[LIENUS AVG]. Rad.,  
dr., cuir. bust r.  
**REVERSE:** AN[NONA] AVG. Annona  
stg. l., holding corn ears and anchor, in ex.  
[?]II.  
19 mm. x 19 mm.  
Sear 2843, RIC 162.  
Found June 16, 1993, Area 1, Quadrant  
D25 I, Layer 72.  
SF#: 93-013

AE/AR Antoninianus of Gallienus, A.D.  
260-268.  
Mint: Rome.  
**OBVERSE:** GALLI[ENVS AVGG?].  
Rad. hd. r.  
**REVERSE:** [IOVI C]ONS.AVG. Goat  
adv. r.  
18 mm. x 16 mm.  
Sear 2965, RIC 207.Area 1, Quadrant E24  
III, Layer 19.  
SF#: 93-026 MF#: 61



**AE/AR Antoninianus of Gallienus, A.D.  
260-268.**

**Mint: Rome.**

**OBVERSE: [GAL]LIENVVS AVG. Rad.  
hd. r.**

**REVERSE: IOVI VLTORI. Jupiter stg.  
facing, holding thunderbolt etc., in ex., S.  
19 mm. x 18.5 mm.**

**RIC 221.**

**Found June 23, 1994, Area 2, Quadrant  
B32 III, Layer 8.**

**SF#: 94-058 MF#: 82**

**AE Antoninianus of Gallienus, A.D.  
260-268.**

**Mint: Rome.**

**OBVERSE: [GAL]LIENVVS [AVG]. Rad.  
hd. r.**

**REVERSE: DIA[NAE CONS.AV]G.  
Antelope adv. l., in ex., XII. 19 mm. x 19  
mm.**

**RIC 180.**

**Found June 7, 1995, Area 2, Quadrant B32  
I, Layer 2.**

**SF#: 95-088**

**AE Antoninianus of Claudius II, A.D.  
268-270.**

**Mint: Rome.**

**OBVERSE: IMP.C.CLAV[DIVS AVG].  
Rad. bust r.**

**REVERSE: AN[NONA AVG]. Annona  
stg. l., r. foot on prow, holding anchor and  
cornucopia. 21 mm. x 19 mm.**

**Sear 3097, RIC 18.**

**Found June 23, 1994, Area 2, Quadrant  
Spoil Heap, Layer Spoil Heap.**

**SF#: 94-063**

**AE Antoninianus of Claudius II, A.D.  
268-270.**

**Mint: Rome.**

**OBVERSE: [IMP.C.CLAV]DIVS AVG.  
Rad. hd. or bust r.**

**REVERSE: IOV[I VICTORI]. Jupiter stg.  
l., holding sceptre and thunderbolt.  
18 mm. x 17 mm.**

**RIC 54.**

**Found July 5, 1994, Area 2, Quadrant D35  
IV, Layer 131.**

**SF#: 94-078**

**AE Antoninianus of Claudius II, A.D.  
268-270.**

**Mint: Rome.**

**OBVERSE: [IMP.C.C]LAVDIVS AV[G].  
Rad. hd. r.**

**REVERSE: [PROVID.AVG]. Providence  
stg. l., leaning on column, holding baton  
and cornucopia  
20 mm. x 19 mm.**

**RIC 86.**

**Found July 12, 1994, Area 2, Quadrant  
D35 I, Layer F76.**

**SF#: 94-112 MF#: 105**

**AE Antoninianus of Claudius II, A.D.  
268-270.**

**Mint: Rome.**

**OBVERSE: [IMP].C.CLAVDIVS AVG.  
Rad. bust r.**

**REVERSE: VIRT[VS AVG]. Mars stg. l.,  
holding branch and spear, shield at feet. 19  
mm. x 18 mm.**

**Sear 3124, RIC 109.**

**Found July 14, 1994, Area 2, Quadrant  
C35 I, Layer 8.**

**SF#: 94-150 MF#: 117**

**AE Antoninianus of Claudius II, A.D. 268-270.**

**OBVERSE:** IMP.C.CLAVD[IVS A]V[G].

Rad. hd. r.

**REVERSE:** Illegible

21 mm. x 19 mm.

Found June 7, 1995, Area 2, Quadrant C31 II, Layer 227.

SF#: 95-155

**AE Antoninianus of Claudius II, A.D. 268-70**

**OBVERSE:** [...]VS AVG. Rad. hd. r.

**REVERSE:** NEPT[...]. Figure (Neptune?) stg. l., holding possible trident in l. hand, something in right.

19 mm. x 18 mm.

Found June 5, 1995, Area 2, Quadrant C30 II, Layer 227.

SF#: 95-031

**AE Antoninianus of Claudius II, A.D. 270-275.**

**OBVERSE:** DIVO CLAVDIO. Rad. hd. r.

**REVERSE:** CONSECRATIO. Large altar. 19 mm. x 17 mm.

Sear 3128, RIC 261 etc.

Found July 17, 1992, Area 2, Quadrant D30 IV, Layer 2.

SF#: 92-050

**AE Antoninianus of Claudius II, A.D. 270-275.**

**OBVERSE:** DIV[O CLAVD]IO. Rad. hd. r.

**REVERSE:** [CO]NSECRATI[O]. Large altar.

17 mm. x 16.5 mm.

Sear 3128, RIC 261 etc.

Found June 17, 1994, Area 2, Quadrant D32 I, Layer 8.

SF#: 94-015

**AE/AR Antoninianus of Aurelian, A.D. 270-275.**

**OBVERSE:** [IMP AVR]ELIANVS AVG.

Rad. bust r.

**REVERSE:** [FORTVNA] REDVX.

Fortune stg. l. on globe, holding olive branch and cornucopia.

21 mm. x 20 mm.

Sear 3159.

Found July 27, 1992, Area 3, Quadrant G22 I, Layer 27.

SF#: 92-045 MF#: 20

**AE Antoninianus of Probus, A.D. 276-282.**

**OBVERSE:** [IMP].PROBVS.AVG. Cuir bust r., wearing rad. helmet, holding spear and shield.

**REVERSE:** Illegible

22 mm. x 21 mm.

Found July 29, 1992, Area 2, Quadrant D33 II, Layer 8.

SF#: 92-030A

**AE/AR Antoninianus of Probus, A.D. 276-282.**

Mint: TS - Thessalonica.

**OBVERSE:** IMP.PROBVS P.F.AVG.

Rad., cuir. bust r.

**REVERSE:** ADVENTVS AVG. Probus l. on horseback holding sceptre, raising r. hand, captive std. in front of horse.

22 mm. x 21 mm. Area 3, Quadrant G22, Layer 1.

SF#: 92-034

AE Antoninianus of Carus, A.D. 282-283.  
**OBVERSE:** IMP.[C.M].AVR.CARVS  
[P.F.AVG]. Rad. bust r.  
**REVERSE:** VICTORI[A AVG]. Victory  
adv. l.  
20 mm. x 16 mm.  
Sear 3307, RIC 20 etc.  
Found May 25, 1995, Area 2, Quadrant  
C30 I, Layer 2/8.  
SF#: 95-013 MF#: 147

AE Antoninianus of Numerian, A.D.  
283-284.  
Mint: KAB - Rome.  
**OBVERSE:** IMP.NVMERIANVS AVG.  
Rad, cuir., dr. bust r.  
**REVERSE:** IOVI VICTORI. Jupiter stg.  
l., holding Victory and sceptre, eagle at  
feet.  
22 mm. x 21 mm.  
Sear 3331, RIC 410 (Carus and his  
Family).  
Found July 29, 1992, Area 1, Quadrant  
E25 I, Layer 12.  
SF#: 92-054

AE Antoninianus of Numerian, A.D.  
283-284.  
Mint: ARL - Arles.  
**OBVERSE:** [IM]P.NVMERIANVS AVG.  
Rad., cuir. bust r.  
**REVERSE:** IOVI VICTORI. Jupiter stg.  
l., holding Victory and sceptre, eagle at  
feet.  
21 mm. x 21 mm.  
Sear 3331.  
Found June 2, 1995, Area 2, Quadrant C30  
III, Layer 227.  
SF#: 95-029

AE Antoninianus of Magnia Urbica, A.D.  
283-285.  
Mint: K[...] - Rome.  
**OBVERSE:** MAGN.VRBICA AVG.  
Diad., dr. bust r. on crescent.  
**REVERSE:** VENVS VICTRIX. Venus  
stg. l., holding helmet and sceptre, shield at  
feet.  
26 mm. x 22 mm.  
Sear 3390, RIC 343 (Carus and his  
Family).  
Found July 27, 1992, Area 3, Quadrant  
G22 I, Layer 27.  
SF#: 92-014 MF#: 24

AE Antoninianus of Diocletian, A.D.  
284-296.  
**OBVERSE:**  
IMP.C.C.VAL.DIOCLE[TIAN]VS  
[P.F.AVG]. Rad., cuir. bust r.  
**REVERSE:** [IOVI CON]SERVAT.  
Jupiter stg. l., holding thunderbolt and  
sceptre.  
22 mm. x 21 mm.  
Found July 28, 1992, Area 3, Quadrant  
G22 IV, Layer 27.  
SF#: 92-016 MF#: 29

AE antoninianus of Diocletian, A.D.  
284-296.  
Mint: Rome.  
**OBVERSE:** IMP.DIOCLETIANVS AVG.  
Rad., dr. bust r.  
**REVERSE:** [IO]VI CONSERVAT.AVG.  
Jupiter stg. l., holding thunderbolt and  
sceptre.  
23 mm. x 22 mm.  
Sear 3415, RIC 161.  
Found June 26, 1995, Area 1, Quadrant  
G22 III, Layer 88.  
SF#: 95-191 MF#: 211

**AE Antoninianus of Diocletian, A.D.**  
284-305.

**OBVERSE:**

**IMP.C.C.VAL.DIO[CLE]TIANVS**  
[P.F.AVG]. Rad., cuir. bust r.

**REVERSE:** Illegible

21 mm. x 19 mm.

Found July 20, 1992, Area 2, Quadrant  
D32, Layer 2.

SF#: 92-031

**AE Antoninianus of Diocletian, A.D.**  
291-292.

Mint: Heraclea.

**OBVERSE:**

**IMP.C.C.VAL.DIOCLETIANVS P.F.AVG.**  
Rad., dr. bust r.

**REVERSE:** CONCORDIA MILITVM.

Diocletian stg. r. receiving Victory on  
globe from Jupiter stg. l.

20 mm. x 20 mm.

Sear 3410, RIC 284.

Found July 21, 1992, Area 2, Quadrant  
D32 III, Layer 8.

SF#: 92-028

### **Post-Reform Coins of Diocletian and the Tetrarchy**

**AE Post-Reform Radiate of Diocletian,**  
A.D. 297-298.

Mint: Rome.

**OBVERSE:**

**[IM]P.C.C.VAL.DIOCLETIANVS**  
P.F.A[VG]. Rad. bust r.

**REVERSE:** VOT./XX./B in 3 lines in  
wreath

19.5 mm. x 19 mm.

Sear 3441, RIC 76a.

Found June 4, 1993, Area 1, Quadrant G22  
I, Layer 7.

SF#: 93-005 MF#: 45

**AE Post-Reform Radiate of Diocletian,**  
A.D. 297-298.

Mint: Rome.

**OBVERSE:** [IMP...].AVG. Rad., dr., cuir.  
bust r.

**REVERSE:** VOT./XX./B. in 3 lines in  
wreath.

19 mm. x 18 mm.

Found July 26, 1994, Area 1, Quadrant  
D26, IV, Layer 169.

SF#: 94-252 MF#: 144

**AE Post-Reform Radiate of Diocletian,**  
A.D. 297-298.

Mint: Rome.

**OBVERSE:** IMP.DIOCLETIANVS  
P.F.AVG. Rad., dr., cuir. bust r.

**REVERSE:** VOT./XX./Θ. in 3 lines in  
wreath.

20 mm. x 20 mm.

RIC 83.

Found May 26, 1995, Area 2, Quadrant  
C31 I, Layer 2/8.

SF#: 95-011 MF#: 149

**AE Post-Reform Radiate of Galerius, A.D.**  
297-298.

Mint: Rome.

**OBVERSE:**

**[GAL].VAL.MAXIMIANVS.NOB.C.** Rad.  
hd. r.

**REVERSE:** VOT./XX./Z. in 3 lines in  
wreath.

20 mm. x 18 mm.

RIC 87b.

Found June 23, 1994, Area 2, Quadrant  
C32 II, Layer 8/136.

SF#: 94-057 MF#: 83

AE Post-Reform Radiate of Constantius I,  
A.D. 305-306.  
**OBVERSE:**  
IMP.CON[S]TA[NTIVS...AVG]. Rad. bust  
r.  
**REVERSE:** VOT./XX./T in 3 lines in  
wreath.  
20 mm. x 19 mm.  
Found June 23, 1994, Area 2, Quadrant  
D32 I, Layer 8.  
SF#: 94-065 MF#: 84

**Coins from the Reign of Constantine I**

AE AE3 of Constantine I, A.D. 319.  
Mint: PT[R] - Trier.  
**OBVERSE:** CONSTANTIN[VS AVG].  
Helm., cuir. bust r.  
**REVERSE:** VICTO[RIAE LAETAE  
PRINC.PERP]. 2 Victories stg. facing  
each other, resting shield inscribed  
VOT./P.R. on altar.  
18 mm. x 17 mm.  
Sear 2783, RIC 223.  
Found July 3, 1995, Area 2, Quadrant C30  
IV, Layer 227.  
SF#: 95-245 MF#: 234

AE AE3 of Constantine I, A.D. 320-322.  
Mint: RP - Rome.  
**OBVERSE:** CONSTANTINVS AVG.  
Laur hd. r.  
**REVERSE:** D.N.CONSTANTINI  
MAX.AVG. VOT./XX. in two lines in  
wreath.  
20 mm. x 20 mm.  
Sear 3773, RIC 232 etc.  
Found June 20, 1994, Area 1, Quadrant  
G26 II, Layer 137.  
SF#: 94-031 MF#: 73

AE AE3 of Constantine I, A.D. 320-324.  
Mint: TSAV[I] - Thessalonica, first  
officina.  
**OBVERSE:** [CONSTAN]TINVS AVG.  
Laur. hd. r.  
**REVERSE:** D.N.CONSTA[NTINI  
MAX.AVG]. [VOT./XX]. in 2 lines in  
wreath.  
19 mm. x 19 mm.  
Sear 3773, RIC 88 etc. Area 2, Quadrant  
D31 III, Layer 8.  
SF#: 92-036A

AE AE3 of Crispus, A.D. 320-324.  
Mint: TSAVI - Thessalonica, fourth  
officina.  
**OBVERSE:** [FL].IVL.CRISPVS  
NOB.CAES. Laur. bust r.  
**REVERSE:** CAESARVM NOSTRORVM.  
VOT./X. in 2 lines in wreath.  
19 mm. x 18 mm.  
Found May 18, 1995, Area 2, Quadrant  
Sporadic, Layer Sporadic.  
SF#: 95-003

AE AE 3 of Constantine I, A.D. 320-337.  
**OBVERSE:** CONSTANTINVS  
MAX.AVG. Laur. hd. r.  
**REVERSE:** CAESARVM NOSTRORVM.  
VOT./X. in 2 lines in wreath.  
18 mm. x 18 mm.  
Found 1992, Area 2, Quadrant Spoil Heap,  
Layer Spoil Heap.  
SF#: 92-032

**AE AE3 of Constantine II, A.D. 325-330.**

**Mint:** AQT - Aquileia, third officina.

**OBVERSE:** [C]ONSTANTINVS

IVN.NOB.C. Laur., cuir. bust l.

**REVERSE:** PROVIDENTIAE CAESS.

Camp-gate surmounted by 2 turrets, star above.

18 mm. x 18 mm.

Found June 16, 1994, Area 2, Quadrant Spoil Heap, Layer Spoil Heap.

SF#: 94-014

**AE AE3/4 of Constantinopolis, A.D. 330-333.**

**Mint:** SMTSD - Thessalonica, fourth officina.

**OBVERSE:** CONSTANTINOPOLI[S].

Helm. bust of Constantinopolis l., wearing imperial mantle and holding sceptre.

**REVERSE:** Victory stgl. l., r. foot on prow, holding sceptre and leaning on shield.

18.5 mm. x 17 mm.

Sear 3790, RIC 188.

Found June 21, 1994, Area 2, Quadrant C32 IV, Layer 136.

SF#: 94-047

**AE AE3/4 of Constantinopolis, A.D. 330-333.**

**OBVERSE:** CONSTANTI[NOPOLIS].

Helm. bust of Constantinopolis l., wearing imperial mantle and holding sceptre.

**REVERSE:** Victory stg. l., r. foot on prow, holding sceptre and leaning on shield.

20 mm. x 13 mm.

Sear 3790.

Found July 6, 1994, Area 2, Quadrant C31 III, Layer 136.

SF#: 94-082 MF#: 95

**AE AE3/4, A.D. 330-335.**

**OBVERSE:** [...CON]STAN[...]. Diad. hd. r.

**REVERSE:** GLOR[IA EXERCITVS]. 2 soldiers stg. either side of 2 standards. 15 mm. x 11 mm.

Found July 21, 1992, Area 2, Quadrant D32 II, Layer 8.

SF#: 92-075

**AE AE3/4 of Constantine II, A.D. 330-335.**

**OBVERSE:** [CON]STANTINVS

IVN.NOB.C. Laur., dr., cuir. bust.

**REVERSE:** [GLOR]IA EXERC[ITVS]. 2 soldiers stg. either side of 2 standards.

17 mm. x 15.5 mm.

Sear 3851.

Found July 6, 1995, Area 3, Quadrant E20 III, Layer 2.

SF#: 95-271 MF#: 249

**AE AE3/4 of Constantius II, A.D. 330-335.**

**OBVERSE:** [FL].IVL.CONSTANTIVS

NOB.C. Laur., cuir. bust r.

**REVERSE:** [GLOR]IA EXER[CITVS]. 2 soldiers stg. either side of two standards.

18 mm. x 18 mm.

Sear 3886.

Found July 22, 1992, Area 2, Quadrant D31 IV, Layer 8.

SF#: 92-042D

**AE AE 4 of Constantine I, A.D. 336-337.**

**OBVERSE:** D.N.CONSTANTINVS

P.F.AVG. Diad. hd. r.

**REVERSE:** [GLORIA EXERCITVS]. 2 soldiers stg. either side of standard.

14 mm. x 13 mm.

C 249.

Found July 15, 1992, Area 1, Quadrant E24 II, Layer 5.

SF#: 92-035A MF#: 1

**Post-Constantinian Coins**

**AE AE4 of Constans, A.D. 337-340.**

**Mint:** AQP - Aquileia, first officina.

**OBVERSE:** CONSTANS P.F.AVG.

**Diad., dr. bust r.**

**REVERSE:** GLORIA EXERCITVS. 2 soldiers stg. either side of standard with christogram.

17 mm. x 15 mm.

**RIC 33 (Vol. VIII).**

**Found** June 29, 1995, Area 1, Quadrant F25 II, Layer 306.

**SF#:** 95-223 **MF#:** 225

**AE AE4 of Constantius II, A.D. 337-340.**

**Mint:** Rome.

**OBVERSE:** [D.N.F.L.C]ONSTANTIVS [AVG]. **Diad., dr. bust r.**

**REVERSE:** [SECVRIT]AS REI P.

Security stg. I., holding sceptre and leaning on column. 15 mm. x 14 mm.

**C 182, RIC 9 etc.**

**Found** July 20, 1992, Area 2, Quadrant D31 IV, Layer 8.

**SF#:** 92-033

**AE AE4 of Constans, A.D. 337-341.**

**OBVERSE:** [C]ONSTANS AVG. **Bust r.**

**REVERSE:** GLORIA EXER[CITVS]. 2 soldiers stg. either side of standard.

15 mm. x 15 mm.

**Sear 3870.**

**Found** June 9, 1993, Area 2, Quadrant C33 IV, Layer 28.

**SF#:** 93-012

**AE AE4 of Constans, A.D. 337-341.**

**OBVERSE:** [CONSTA]NS P.F.AVG.

**Diad., dr. bust r.**

**REVERSE:** [GLORIA] EXERCITVS. 2 soldiers stg. either side of standard with christogram.

16 mm. x 14 mm.

**Sear 3870.**

**Found** July 21, 1994, Area 2, Quadrant Surface, Layer 1.

**SF#:** 94-199

**AE AE4 of Constantius II, A.D. 337-341.**

**OBVERSE:** CONSTANT[IVS...AVG].

**Diad. hd. r.**

**REVERSE:** GLORIA EXER[CITVS]. 2 soldiers stg. either side of standard.

15 mm. x 14 mm.

**Sear 3898.**

**Found** June 15, 1994, Area 2, Quadrant C32 IV, Layer 8.

**SF#:** 94-011

**AE AE4 of Constans, A.D. 337-346.**

**OBVERSE:** D.N.CONST[TA]NS P.F.AVG.

**Diad., dr. bust r.**

**REVERSE:** GLORIA EX[ERCITVS]. 2 soldiers stg. either side of standard.

16 mm. x 15 mm.

**Sear 3870.**

**Found** June 23, 1993, Area 1, Quadrant G22 III, Layer 2.

**SF#:** 93-020

**AE AE4 of Constans, A.D. 337-348.**

**OBVERSE:** CONSTAN[S...]. **Diad. bust r.**

**REVERSE:** 2 Victories stg. facing each other.

15 mm. x 15 mm.

**Found** July 21, 1992, Area 2, Quadrant D31 IV, Layer 8.

**SF#:** 92-072

**AE AE3 of Constantius II, A.D. 337-361.**

**OBVERSE:** [...CONSTANT]IVS

**P.F.[AVG].** Hd. or bust r.

**REVERSE:** Illegible

17 mm. x 16 mm.

Found June 15, 1993, Area 1, Quadrant  
E24 IV, Layer 19.

SF#: 93-054 MF#: 51

Notes: Broken fragment.

**AE AE4 of Constans, A.D. 341-348.**

**OBVERSE:** [C]ON[S]TANS P.F.AVG.

Diad., dr. bust r.

**REVERSE:** [VICTORIAE

DD.AVGG.Q.NN]. 2 Victories stg. facing  
each other.

15 mm. x 14 mm.

Sear 3871.

Found July 19, 1994, Area 2, Quadrant  
C35 I, Layer 177.

SF#: 94-194 MF#: 124

**AE AE4 of Constantius II, A.D. 341-348.**

**OBVERSE:** D.N.CONSTA[NTIVS

P.F.AVG]. Diad. hd. r.

**REVERSE:** VOT./XX./MVL.T./XXX. in 4  
lines in wreath.

16 mm. x 12 mm.

Sear 3900.

Found July 28, 1992, Area 1, Quadrant  
F23 IV, Layer 23.

SF#: 92-039A MF#: 32

**AE AE4 of Constans, A.D. 347-348.**

**OBVERSE:** [CON]STANS P.F.AVG.

Diad. hd. r.

**REVERSE:** VICTO[RIAE

DD.AVGG].Q.NN. 2 Victories stg. facing  
each other.

14 mm. x 14 mm.

Found July 20, 1992, Area 1, Quadrant  
F23, Layer 2.

SF#: 92-068

**AE AE4 of Constans, A.D. 347-348.**

Mint: SMTS - Thessalonica.

**OBVERSE:** [CON]STANS [P.F.AVG].

Diad., dr., cuir. bust r.

**REVERSE:** VICTORIA[E]

D[D.AVGG.Q.NN]. 2 Victories stg. facing  
each other.

16.5 mm. x 15 mm.

Sear 3871, RIC 100. Area 1, Quadrant D28  
IV, Layer 129.

SF#: 94-012 MF#: 69

**AE AE2 of Constans, A.D. 348-350.**

Mint: AQP[S?] - Aquileia, first officina.

**OBVERSE:** D.N.CONSTANS P.F.AVG.

Diad., dr., cuir. bust l., holding globe.

**REVERSE:** FEL.TEMP.REPARATIO.

Soldier adv. r., dragging young barbarian  
from hut beneath tree.

21.5 mm. x 20 mm.

Sear 3876, RIC 103.

Found July 20, 1992, Area 1, Quadrant  
D25 IV, Layer 5/12.

SF#: 92-063 MF#: 4

**AE AE2 of Constantius II, A.D. 348-354.**

**OBVERSE:** D.N.CONSTANTI[VS

P.F.AVG]. Diad., dr., cuir. bust r.,)

behind hd.

**REVERSE:** [FEL.TEMP.REP]ARATIO.

Soldier adv. l., spearing fallen horseman.  
20 mm. x 16 mm.

Sear 3903.

Found July 28, 1992, Area 1, Quadrant  
G24 I, Layer 2/9.

SF#: 92-040B



**AE AE2 of Magnentius, A.D. 350-351.**

**Mint:** Trier.

**OBVERSE:** IM.CAE.MAGNENTIVS

**AVG.** Dr. bust r.

**REVERSE:** FELICITA[S] REIPVBLICE.

Magnentius stg. l., holding Victory and labarum.

24 mm. x 22 mm.

Sear 3918, RIC 264 etc.

Found June 29, 1995, Area 2, Quadrant B34 IV, Layer 192.

SF#: 95-224 MF#: 227

**AE AE3, A.D. 351-361.**

**OBVERSE:** D.N.CO[NSTAN...]. Dr. bust r.

**REVERSE:** [FEL.TEMP.REPARATIO].

Soldier adv. l., spearing fallen horseman.

16 mm. x 16 mm.

Found July 14, 1992, Area 1, Quadrant E24 I, Layer 2.

SF#: 92-062

**AE AE3, A.D. 351-361.**

**OBVERSE:** Hd. r.

**REVERSE:** [FEL.TEMP.REPAR]ATIO.

Soldier adv. l., spearing fallen horseman.

18.5 mm. x 16 mm.

Found June 20, 1994, Area 2, Quadrant D32 I, Layer 8.

SF#: 94-037 MF#: 76

**AE AE3, A.D. 351-361.**

**OBVERSE:** Hd. r.

**REVERSE:** [FEL.TEMP.REPARATIO].

Soldier adv. l., spearing fallen horseman.

16 mm. x 16 mm.

Found June 27, 1994, Area 1, Quadrant E25 IV, Layer 2.

SF#: 94-067 MF#: 92

**AE AE3, A.D. 351-361.**

**OBVERSE:** Hd. r.

**REVERSE:** [FEL.TE]MP.[REPARATIO].

Soldier adv. l., spearing fallen horseman.

15 mm. x 15 mm.

Found July 4, 1995, Area 3, Quadrant D20 II, Layer 2.

SF#: 95-262 MF#: 241

**AE AE3 of Constantius II, A.D. 351-361.**

**Mint:** [P...].

**OBVERSE:** D.N.CONSTAN[TIVS

P.F].AVG. Diad., dr., cuir bust r.

**REVERSE:** FEL.TEMP.REPARATI[O].

Soldier adv. r., spearing fallen horseman.

17 mm. x 17 mm.

Sear 3910.

Found June 10, 1994, Area 2, Quadrant D35 III, Layer 131.

SF#: 94-003 MF#: 63

**AE AE3 of Constantius II, A.D. 351-361.**

**OBVERSE:** [D.N.CON]STANTIVS

[P.F.AVG]. Diad., dr., cuir. bust r.

**REVERSE:** [FEL.TEMP].REPARATIO.

Soldier adv. l., spearing fallen horseman.

17 mm. x 16 mm.

Sear 3910.

Found June 20, 1994, Area 2, Quadrant C32 IV, Layer 8.

SF#: 94-034 MF#: 74

**AE AE3 of Constantius II, A.D. 351-361.**

**OBVERSE:** D.N.CONSTANTIVS

P.[F.AVG]. Diad. bust r.

**REVERSE:** FEL.TEMP.[REPARATIO].

Soldier adv. l., spearing fallen horseman.

18 mm. x 14 mm.

Sear 3910.

Found July 6, 1994, Area 2, Quadrant D31 II, Layer 8.

SF#: 94-080 MF#: 97

AE AE3 of Constantius II, A.D. 351-361.  
**OBVERSE:** D.N.CONST[ANTIVS  
P.F.AVG]. Diad., dr., cuir. bust r.  
**REVERSE:** [FE]L.TEMP.REPARA[TIO].  
Soldier adv. l., spearing fallen horseman.  
18 mm. x 17 mm.  
Found July 19, 1994, Area 1, Quadrant  
G22 IV, Layer 23.  
SF#: 94-178 MF#: 126

AE AE3 of Constantius II, A.D. 351-361.  
**OBVERSE:** [D.N.CONSTAN]TIVS  
[P.F.AVG]. Diad., dr., cuir. bust r.  
**REVERSE:** [FEL.TEMP.REPARATIO].  
Soldier adv. l., spearing fallen horseman.  
17 mm. x 15 mm.  
Sear 3910.  
Found July 20, 1994, Area 2, Quadrant  
B34 III, Layer 2.  
SF#: 94-188

AE AE3 of Julian II, A.D. 355-361.  
**OBVERSE:** D.N.CLIVLIANV[S N.C.].  
Bare-headed, cuir. bust r.  
**REVERSE:** [FEL.TE]MP.[REPARATIO].  
Soldier adv. l., spearing fallen horseman.  
16 mm. x 16 mm.  
Found June 26, 1995, Area 1, Quadrant  
D27 IV, Layer 133.  
SF#: 95-192 MF#: 205

AE AE4 of Constantius II, A.D. 355-361.  
**OBVERSE:** D.N.CON[STANTIVS  
P.F.AVG]. Diad., dr., cuir. bust r.  
**REVERSE:** SPES REI[PUBLICAE].  
Constantius stg. l., holding globe and  
spear.  
16 mm. x 15 mm.  
Sear 3911.  
Found July 30, 1992, Area 1, Quadrant  
E24 I, Layer 12.  
SF#: 92-077

AE AE4 of Constantius II, A.D. 355-361.  
**OBVERSE:** D.N.CON[STANTIVS  
P.F.AVG]. Diad., dr., cuir. bust r.  
**REVERSE:** [S]PES REI[PV]BLICE.  
Constantius stg. l., holding globe and  
spear.  
16 mm. x 14 mm.  
Sear 3911.  
Found June 11, 1993, Area 2, Quadrant  
C34 IV, Layer 28.  
SF#: 93-011A

AE AE3 of Jovian, A.D. 363-364.  
**OBVERSE:** [D].N.IOVIA[NVS P].F.AVG.  
Diad., dr., cuir. bust r.  
**REVERSE:** VOT./V./MVLT./X. in 4 lines  
in wreath.  
19 mm. x 19 mm.  
Found July 30, 1992, Area 1, Quadrant  
E24 II, Layer 12.  
SF#: 92-061

AE AE3 of Valens, A.D. 364-378.  
**OBVERSE:** D.N.VALENS P.F.AVG.  
Diad., dr., cuir. bust r.  
**REVERSE:** [SECVRITAS]  
REIPVBLICAE. Victory adv. l.  
17 mm. x 15 mm.  
Sear 4018.  
Found 1993, Area 2, Quadrant C32 III,  
Layer 28.  
SF#: 93-008

AR Denaro Picciolo of Perugia, A.D.  
1330-1325.  
Mint: Perugia.  
16 mm. x 13 mm.  
Found June 15, 1994, Area 1, Quadrant  
D27 III, Layer 129.  
SF#: 94-009 MF#: 64